

the
APPLE
by
WALTER JACK



Compliments of
FRIEND MANUFACTURING CO.

We hope you'll like this little book

For a long while we've wanted to give a book like this to our friends.

Many orchardists have never been able to spare time to study the apple's history—although every successful grower naturally is interested.

At last we found the right man to tell the story. For many years Walt Jack's hobby has been apple history, and he has dug up interesting facts that very few growers are familiar with.

And of course, it's nearly all new to the young folks who will be the orchardists of tomorrow.

So here's the result, with our compliments and very best wishes.

Friend Manufacturing Co.
Gasport, N. Y.

Sprayers • Dusters • Pumps • Brush Cleaners • Fruit Sizers

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THE APPLE

By WALTER JACK

Compliments of
Friend Manufacturing Company

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CHAPTER I

An Orchard Dear to Memory

Its memory is as sweet as the apples it bore. Associated with it, and with the orchard, are pleasant and endearing recollections.

The old farm in the Western Reserve of Ohio was one that marked a great stride in the migration of the apple westward.

That apple tree is still a part of the child's earliest consciousness of living. The orchard, really only a step beyond the garden, seemed far, far away. The tree had been a fixture for more than a half century in the lives of the pioneers and earlier owners of the farm. It seemed that the tree must have always stood there.

A visit to the tree was an early childhood adventure. Mother was a young woman, a mere girl, a comrade who had an understanding of the life of a child, his tastes and instincts, and possessed the wisdom to protect that child from harmful things like green apples.

The old tree seemed to have branches that tangled with the great rolling clouds which drifted over the countryside on a quiet summer day. The orchard of four acres seemed vast indeed, reaching beyond the permitted limits of a child's travels.

Mother selected from this tree choice apples which softened in the warm mellowing sun. Beyond there were other trees, and other apples that were forbidden fruit.

The memory of that day seems to fade away like a dream, with a hazy recollection of being under the old "Golden Sweet" tree.

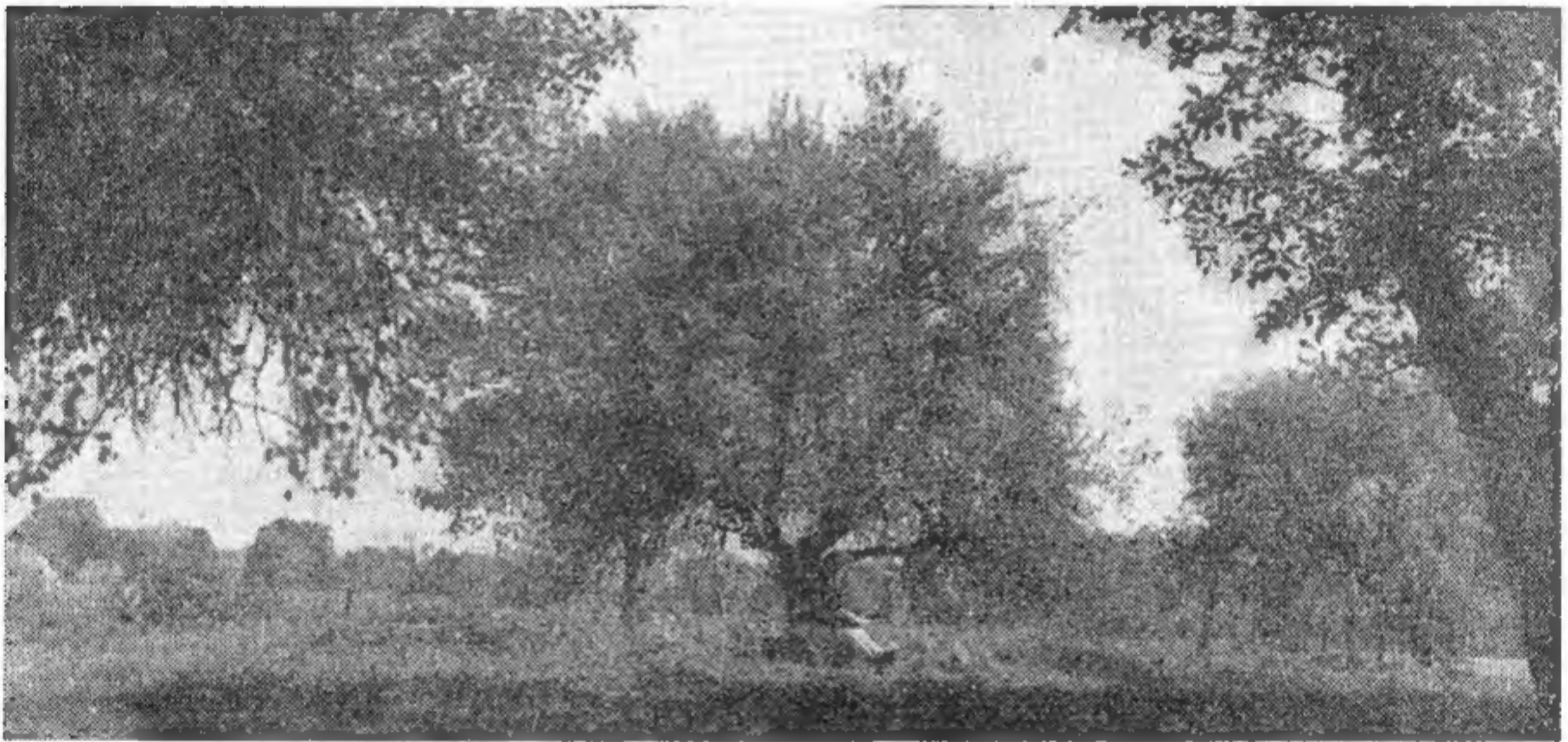
Years passed; the farm became enriched with childhood associations, each year adding memories. A consciousness of the changing seasons, the blossoming of trees and the maturing of fruit, came to a growing child. Then, the certain knowledge of boyhood that summer was the time for Golden Sweet apples, and how the days followed one another in a slow succession, all too slowly for a boy longing for the mellow Golden Sweets of childhood.

The orchard at home was the same as other orchards, yet it was different. Only in later years, after the farm had been sold, did the story of this orchard come to light. It is like the story of thousands of farm orchards. This orchard was at the cross roads of two great migrations of apples, and people. Its varieties were those of New England and of southeastern Pennsylvania. New England pioneers who trekked westward with ox teams and covered wagons carried with them scions, young trees, or apple seeds as did their ancestors. My father, who was born and reared in western Pennsylvania, brought to the farm grafts and young grafted trees from his old home. Some of these had been

carried by successive generations of the family across the Keystone state from the southeastern counties. Some of the varieties were brought in by the Pennsylvania Dutch in their historic migration from Europe two and one half centuries before.

The memory still lingers of awakening knowledge of neighboring orchards. From the front door of the old home might be seen the tree tops on a neighboring farm. This orchard, mostly seedlings, had been set in the days when "the country was new". Its proprietor had established the first water mill in the community, and had turned his attention to providing apples and other fruits as a means of sustenance for his family.

This orchard today, scraggly and neglected, with many casualties, recalls the fact that the first thought of the pioneer, after clearing his land, was to plant a home orchard. This was true not only when America was a group of colonies bordering on the Atlantic, but when the increasing population was clamoring for new lands and greater opportunity beyond the "rock bound" Atlantic coast.



Old trees mark the place where once stood the cabin of a settler migrating from Lyme, Connecticut, to New Lyme, Ohio. Such evidences of old orchards are to be found from coast to coast. Apple seeds, trees or scions were among the most cherished possessions of the westbound migrant.

The New Englander through necessity had his eyes on the west. His heart was quickened by the visions of virgin soil, well fenced fields, and an orchard of delicious fruit. The frontiers of this nation moved westward with the creaking immigrant wagon and its precious contents, the wife, children, belongings and the stock from which orchards were started.

Recently a member of an old New England family explained the motive for the westward migration of his and many similar families.

The Revolutionary War had achieved independence for the colonies. There were social and psychological changes in every community, and in every home. Parents were greatly concerned about the future of their sons. Their daughters would probably marry eligible young men of the neighborhood, as had the women for generations. But responsibility for the future of the young men rested heavily on their shoulders.

In those years opportunities were limited. A young man might become a clergyman, or he might go to sea. The family was too large for the old farm, and even then soil exhaustion was becoming a problem.

Land promoters found interested prospects in every family. Most interested of all was the mother, who listened intently to the glowing stories of opportunity farther west on new lands.

Mothers visioned new communities, homes for their sons and daughters, and a secure future in the west. This vision strengthened the resolution of mothers to undertake the long trek to New York, Ohio or beyond.

On the farm of the family mentioned above, trees are still standing which grew from seeds carried in the apron pocket of the mother to her new home.

Pennsylvanians and Virginians in this early period of American history were likewise interested in land and opportunity, not for themselves alone but for their sons and daughters.

The adventurous moved westward, subduing the wilderness, battling with Indians, and establishing homes. Sons and daughters moved onward. A great tide of immigrants, uncertain as to the titles of their Pennsylvania lands, gathered their possessions and proceeded down streams to the Ohio, settling in Kentucky, Tennessee, and beyond. They carried with them apple seeds and apple trees to their new homes.

West of Conneaut, Ohio, two old apple trees are to be seen in an open field, a few rods from Federal Route 20. Some years ago an aged man, Anderson Hubbard, told me the story of the original orchard. In the early years of the last century this orchard was the largest in northern Ohio. It covered eight acres! It marked a step in the westward migration of orcharding, and helped to inspire many home seekers going farther west.

The origin of the orchard was typical. The owner of the land believed in the future of apples in a new great country. A few trees were growing nearby, and these were grafted with scions brought from Connecticut. Other trees which had been growing in a clump, protected by a brush fence, in the Ohio River valley, were brought by pack horse to the Lake Shore. They were set out and the next year grafted. These young trees were results of Johnny Appleseed's patient scattering of seed in his wide wanderings. Owing to existing stumps, the trees were lined up but one way.

Many other orchards in this vicinity were started from Johnny Appleseed plantings; the young trees were usually brought by pack horse to the lake region.

The influence of this Ohio orchard was nation wide. A great covered wagon migration followed this highway, long a main artery of travel. The orchard's spring time bloom was cheering to the west-bound travelers, many of whom camped there over night. The owner infected his guests with his own great enthusiasm for orcharding.

Many travelers who were long settled in new western homes returned to this orchard for stock for grafting, also to refresh their eyes and their memories. This "grand-daddy" of many orchards directly inspired the apple's distribution along the south shores of the Great Lakes.

Beyond and to the south of this site is a quiet little valley, in which is an old time factory, rich in history and tradition. The old foundry is full of ancient patterns, and examples of old time craftsmanship. The factory built saw mills, steam engines, mowing machines, and other equipment needed by an agricultural community. In their slack time they made apple-paring machines; in one year ten thousand of these devices were made and marketed by this one plant.

The parer was a strange contraption of wood and metal, a forerunner of that mysterious apple paring machine of childhood that so many of us can remember. The writer could return to his old home in the dark, and walk straight to the old paring machine in its accustomed place at the head of the cellar stairway.

An apple paring and slicing device invented and manufactured early in the 19th century at Conneaut, then known as Salem, Ohio. A family known as Tinker, inventive geniuses, made ten thousand of these for sale house-to-house by pioneer peddlers in Ohio, Pennsylvania and western New York. At the end of the wooden plunger was a stud on which the apple was pegged. Sharp curved metal blades, decreasing in curvature toward the end of the frame, were the cutting surfaces; a vigorous thrust of the plunger did the trick. This device preceded the apple-paring machine. The Tinker family manufactured almost everything, from this apple-slicer to saw-mill equipment and steam engines, early mowing machines and threshing machines.



CHAPTER II

The Economic Side of Apple Growing

"We earned the money to pay our taxes by drying apples, sold and shipped to Buffalo, and by the Erie canal eastward to the New York market," was the remark made once to me by a very old farmer of Chautauqua County, N. Y.

Early in the nation's history, American dried apples found their way to all parts of the world. Large quantities were shipped to Europe, particularly central Europe, three and four generations ago.

In the old days before the Civil War, dried apples from the north were carried as stock in trade by southern merchants, just as canned goods are nowadays. The pioneer farmer on the western prairie brought home a few pounds of dried apples for the family's Thanksgiving or Christmas pie. In lumber camps of Michigan, Wisconsin, and the middle west, this preserved fruit was the culinary delicacy of frugal meals for which the foundation consisted of potatoes, beans, and salt pork.

Dried apples were exchanged at the country store on a basis varying from one to five or six cents a pound—for gingham, red flannel, tea and coffee, spices, and other needed things to maintain home life during the long winter months. Children asked to have a few dried apples placed in their dinner pails to munch at school. They were "good eating."

Dried apples were a staple article of trade even in the earliest colonial days. They "shipped well," and enjoyed a wide demand.

For market apples, the standard package for years was the barrel. No community was complete without a stave mill.

In Washington Irving's day, the Dutch of the Hudson valley supplied New York city merchants with their barrels of apples, carried down the Hudson by boat. The Pennsylvania Dutch won reputations for the quality of their fruit back in the days of the Penns, although quality standards were nothing like those of today. The town housewife was far more charitable in those days when she saw a wormy or misshapen apple. She simply cut out the bad spot and thought nothing more about it.

Apples were sold for as low as 75 cents a barrel. Apple cider brought from three to five cents a gallon. There was comparatively little competition from other fruits. On the Atlantic seaboard there were oranges from Spain, but the great orange producing areas of Florida and California were yet to be developed.

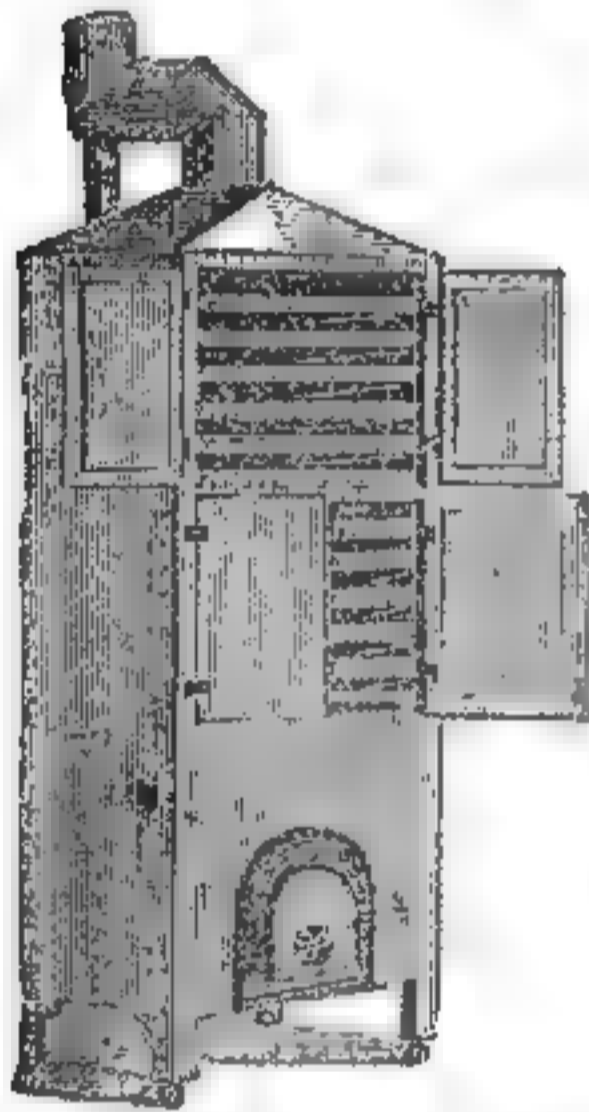
The apple, equally good eaten out of hand, cooked, baked, or made into juice, was the matchless favorite of all. An apple in the child's

school lunch was then an essential; today its place may be taken by the orange or banana.

A bin of apples in the cellar, and many buried in the ground, served as a source of food, as health insurance—and more besides. It was also a “nest-egg”. If the family ran short of groceries and food, a few baskets of apples could be taken to town and sold from house to house, or to the grocer. There was always a ready market.

Even in the small villages, thrifty housewives bought apples by the bushel or barrel and put them away in the cellar, sorting and using as the winter advanced. Many farmers found this the best outlet for their

THE STANDARD Fruit Dryer

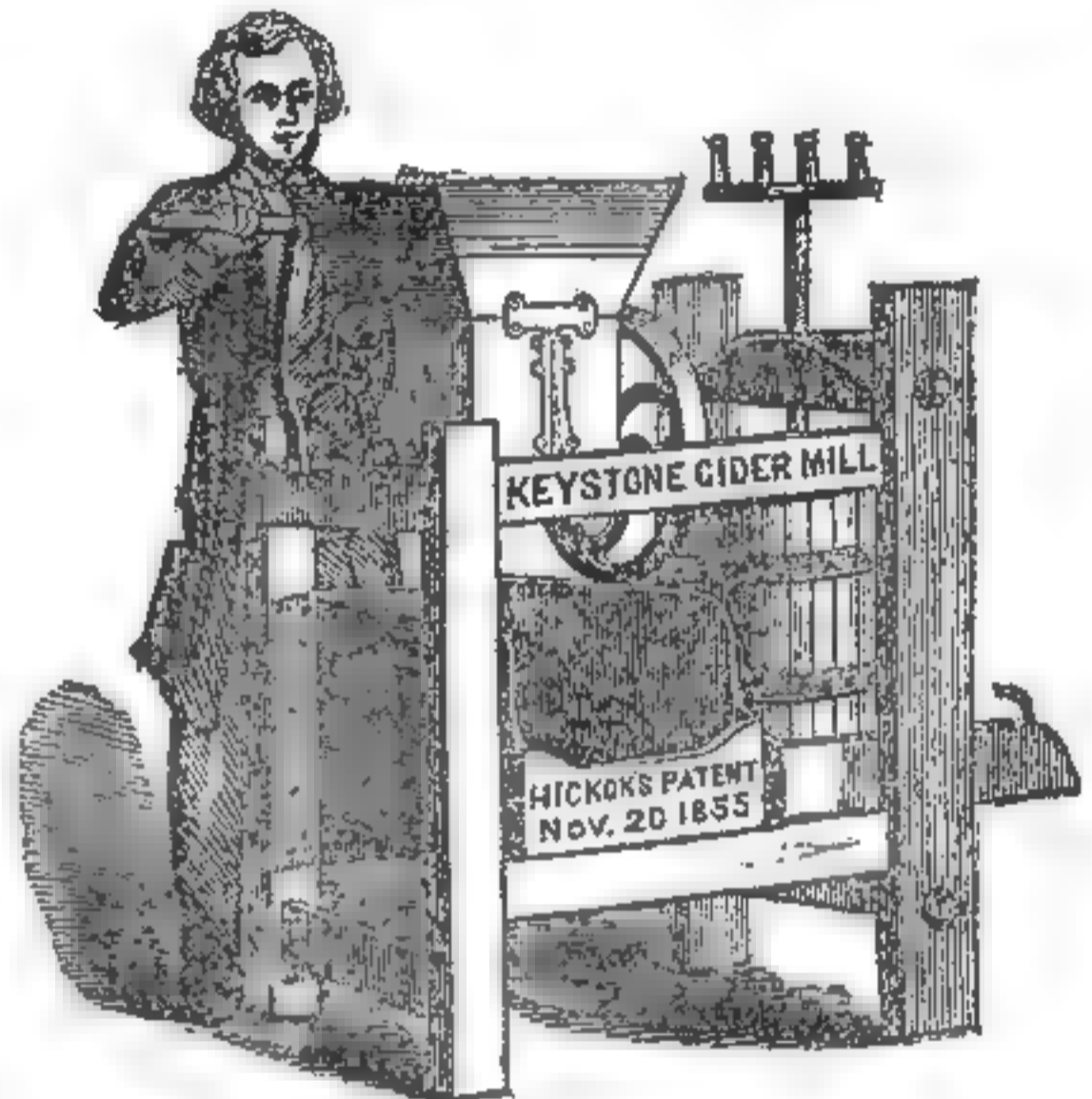


OF AMERICA.
Zimmerman's
Portable Galvanized
Iron Dryer & Baker.
Over 10,000 Sold.
THE MOST PRACTICAL
COMBINED
Dryer and Baker

In the Market.
Is Economical, Convenient, Portable, and absolutely Fire-proof.
Costs less than you can build either a Dryer or Out-oven.
Send for circular at once.

Address
JOHN ZIMMERMAN,
Mansfield, Ohio.

Various types of apple dryers and cider mills were advertised in every farm paper in the '60s, '70s and '80s. The two accompanying advertisements are from American Agriculturist.



THE CHAMPION. HICKOK'S PATENT PORTABLE KEYSTONE CIDER AND WINE MILL.

10,000 IN USE AND APPROVED.

This admirable machine is now ready for the fruit harvest of 1864. It is, if possible, made better than ever before, and well worthy the attention of all farmers wanting such machines.

It has no superior in the market, and is the only mill that will properly grind Grapes. For sale by all respectable dealers.

On account of the very heavy excise tax on spirits, there will be a large demand for good Cider, (which is, by the way, the most healthy beverage there is, especially for those afflicted with liver complaints,) and every one having apples will make them up into good Cider, if they would study their interests. I intend to have good receipts for making Cider printed and distributed among dealers, for the use of those purchasing mills.

If your merchant does not keep them, tell him to send for one for you, or write to the manufacturer yourself. Address the manufacturer. W. O. HICKOK,
767-11t Eagle Works, Harrisburgh, Pa.

crop. Old apple growers from all sections of the country remember the days when they loaded up the wagon with bushel baskets and barrels, or with loose apples, starting for the neighboring town by daylight in autumn and peddling apples from house to house, returning after dark gratified at the success of a long day's work.

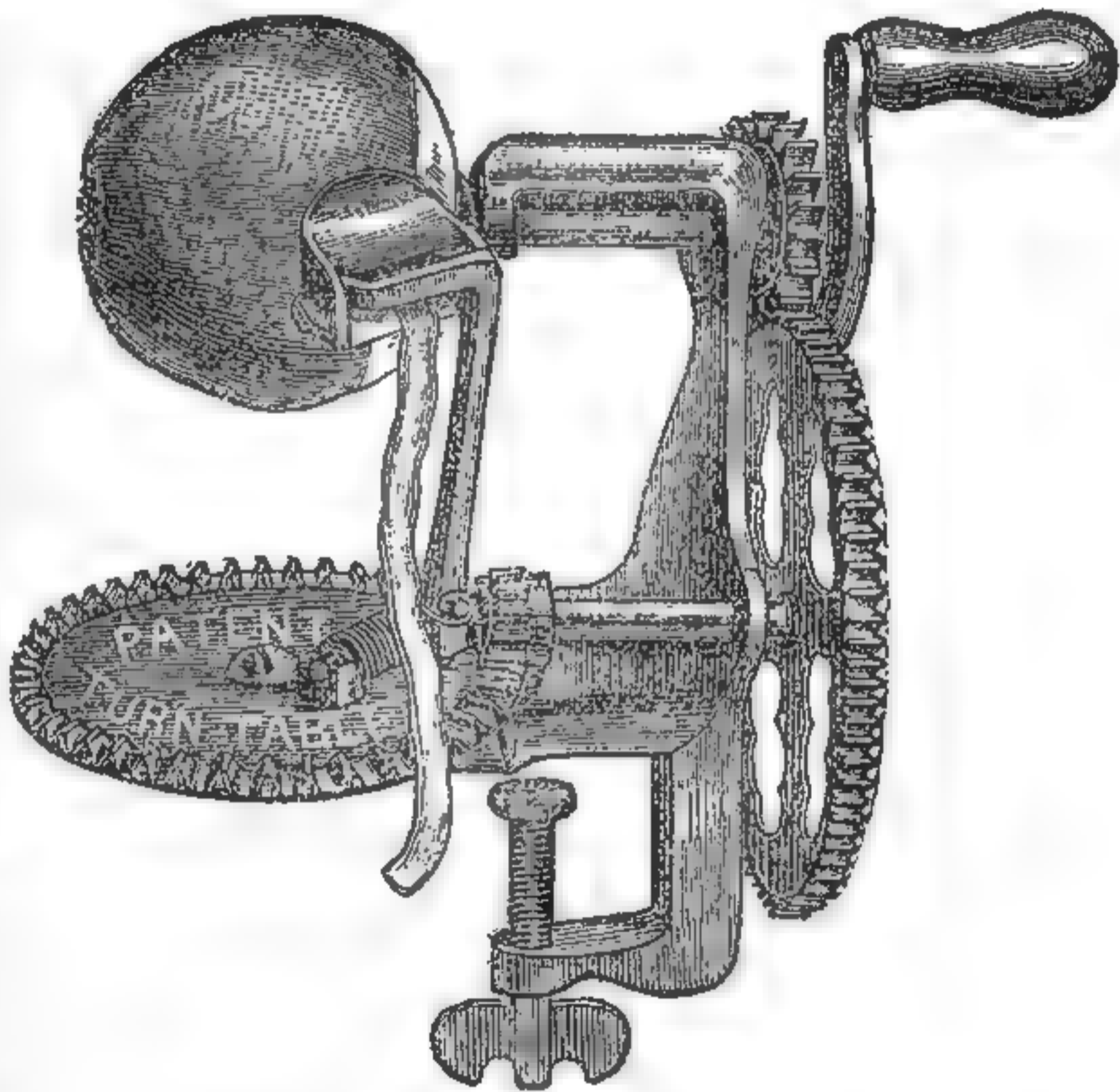
Apple butter and apple jelly were delicacies to be found at hotels and boarding houses. In those days Conneaut, Ohio won for itself a unique

reputation. Orchards of "Pumpkin Sweet", a large russet sweet apple, were set on almost every farm, and apple butter making was an autumn routine. Copper kettles were used, and constant stirring was essential.

Apple butter was made by cooking the peeled and sliced apples in sweet cider, and adding spices, and sugar if necessary. Apple jelly, made by boiling down sweet cider, was a higher cost product, and brought from 15 to 50 cents a gallon in crocks, in the early days of the industry. The sourer the apples, the better it would jell. Pectin is added today.

Prices of apple butter ranged from 10 to 25 cents a gallon, to the producer, in days when pennies were far more precious than they are today. The apple butter was shipped in kegs and barrels to the lumber woods of upper Michigan, and in pre-Civil war days to the South.

THE "TURN-TABLE APPLE PARER" is one of the best machines for the purpose of its invention with which we are acquainted. It is a genuine Yankee invention, was patented some two years ago, and has since been introduced to some extent in New England. We have had one of these machines only two weeks, yet has become an indispensable article in the "kitchen cabinet,"—being considered the best of several apple parers yet tried in that department. In the language of a contemporary, "it is simple in construction, is made entirely of iron, and can be readily attached to the side of a table or shelf. It is small and compact withal, and may be put into a box $4\frac{1}{2}$ by 6 by 8 inches, without taking it apart. The most important thing, however, is, that it works well. We have tried it on gnarly apples, and found the flexible or movable knife to adapt itself admirably to the irregularities of the fruit. This knife cuts upward instead of downward or horizontally. Simply turning the crank revolves the apple on the fork, and carries the knife round the fruit, against which it is kept pressed by a spring. A cam under the turn-table, throws the knife lever



TURN-TABLE APPLE PARER.

outward as soon as it has completed the paring; it then goes round, and back to the starting point, ready for another apple. By continuing to turn the crank, the apple will be sliced into thin parings, if desired, for drying or cooking. The implements are not expensive, as they are wholesaled so they can be retailed at \$1 each with a fair profit."

This picture and description of one of the earliest paring machines appeared in the Rural New Yorker in 1879. Nearly every farm family had a machine of this or similar type. Reasonableness of price matched its efficiency in operation, as it "retailed at \$1 with a fair profit."



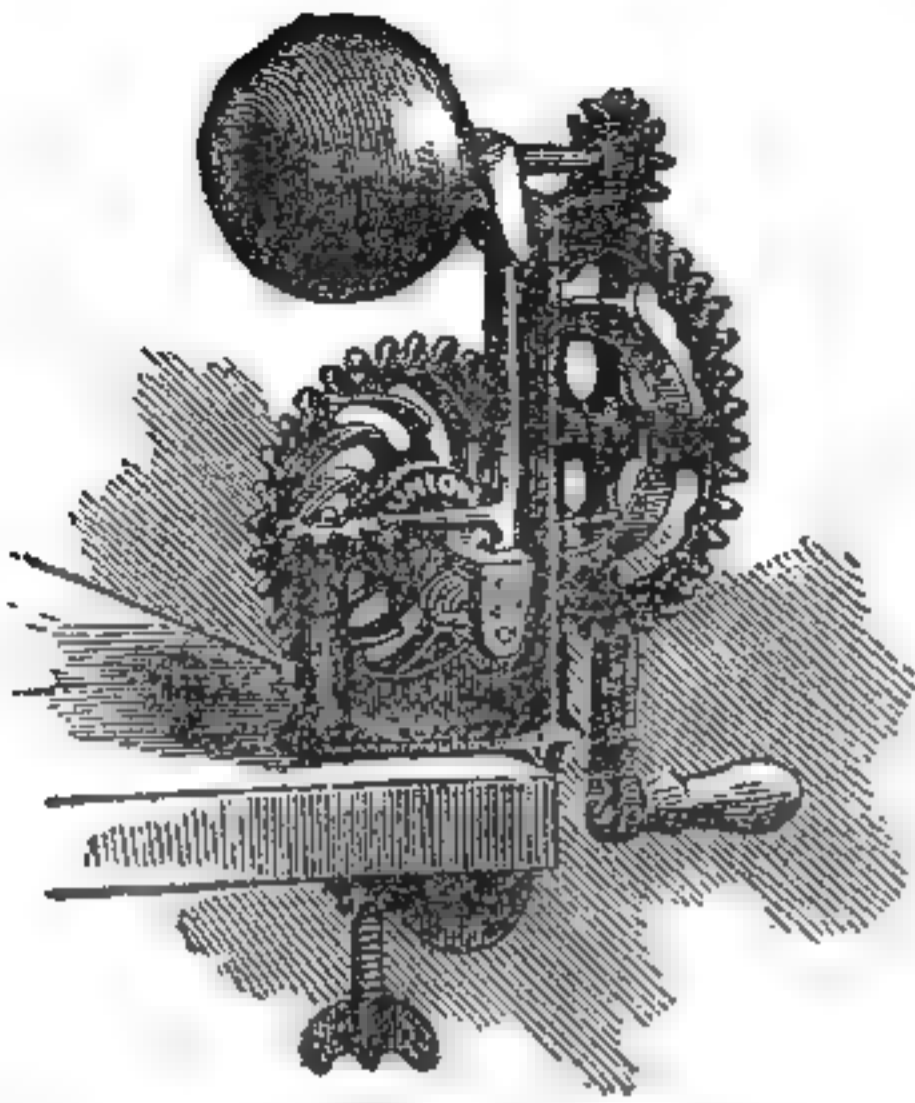
An old Presbyterian church building of 1820 is now used as a cider mill at North East, Pa. Members of the first congregation in northwestern Pennsylvania aided in building the church. The cider press has the place once occupied by the pulpit.

In the writer's memory two apple industries stand out. One was a marvelous mill, and jelly and apple butter factory, at Pierpont, Ashtabula county, Ohio, operated by Caine Brothers who came from the Isle of Man. Hall Caine, the famous writer, was one of the family. The concern shipped some of their products to the British Isles.

This cider mill was supplied with apples from a farming community which today is starving for apples, due to neglect of trees.

Another famous old cider mill was that of Alfred DuBois & Son, bankers, Hillsdale county, Michigan. At the turn of the century this cider mill was the commercial outlet for old time orchards on farms for miles around. Sixty girls and women were employed in the apple dryer department. The choicest of fruit was used in apple butter and jelly, and every apple that was used for cider was first carefully examined and sorted, and any small defects were removed. This concern did a wide business until destroyed by fire a generation ago. The industry which gave identity and employment to a community is gone, and the community itself a memory.

There was a grand old orchard east of Hillsdale, Michigan. It was the envy of the community. Buyers came from Chicago, Minneapolis and St. Paul, to bid for the apples on the trees. The orchard had its tradition; while it was being set, word was brought that Lincoln had been shot.



THE UNION APPLE PARER.

[Patent pending.]

ENTIRELY NEW.

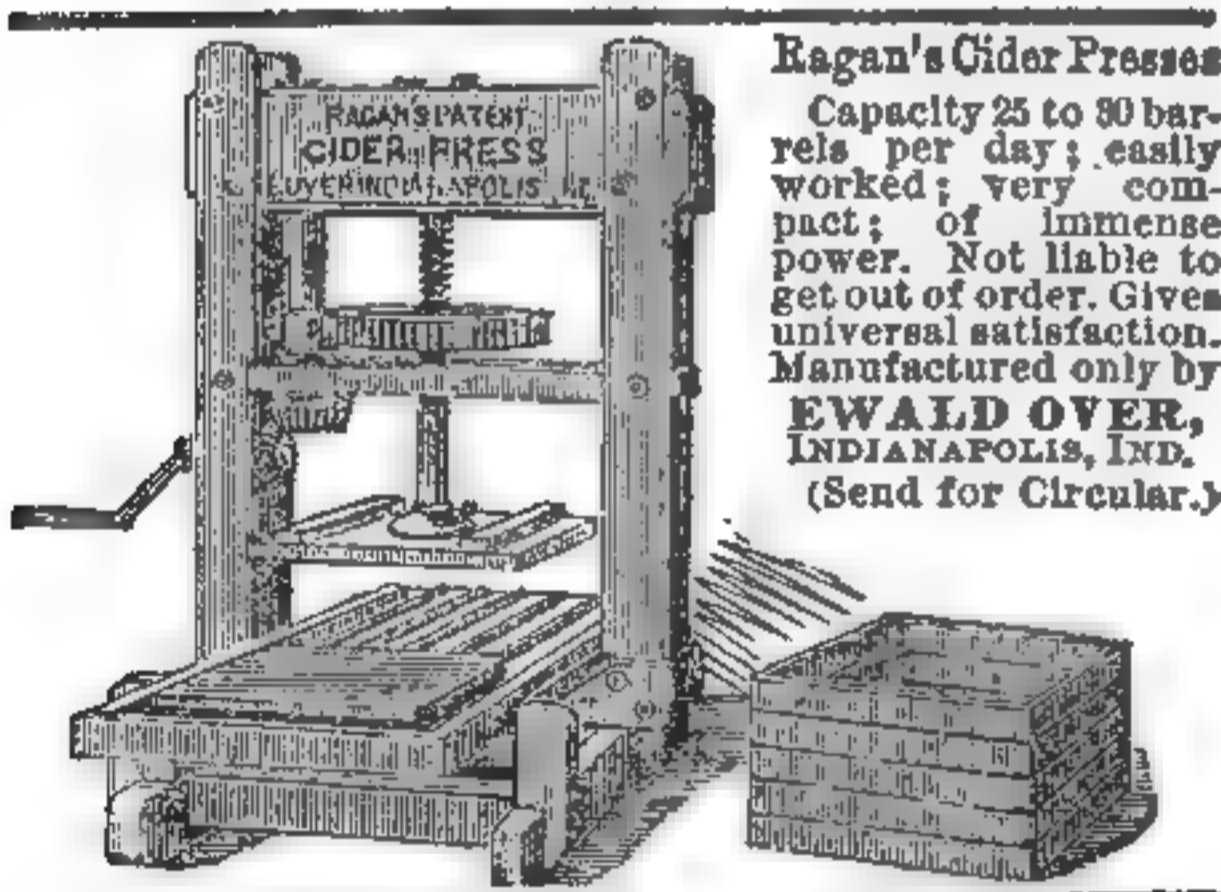
The Union Apple Paring Machine is so constructed that the knife pares going both ways, thus avoiding a waste of time in turning back without paring, and also, overcoming the objections to the "snap machines." It contains a less number of parts than any other machine in market. The gears are all connected directly with each other, thereby dispensing with the arbor or rod to connect them, and which has always been liable to work loose and turn around without moving the parts. It is about the usual weight of others but more compact, thus being stronger. It is very neat, as will be seen by the above cut. It is very thorough in its construction, and is not liable to get out of order by constant or hard using.

Only four turns of the crank are required to pare each apple! It has a straight knife, consequently leaves the apple smooth and handsome. Great pains have been taken to perfect this machine in all its parts, and it is warranted entirely satisfactory. For sale by all dealers. **WHITTEMORE BROTHERS, Sole Manufacturers,** 36 & 38 Southbridge St., Worcester, Mass.

Modern high-speed production had already made its debut in 1865, when this advertisement appeared in Rural New Yorker, offering a parer that required only four turns of the crank to pare each apple.

In later years, the Pacific northwest orchards came into bearing, and aggressive co-operatives pushed newer varieties, attractive in color, carefully sprayed according to the best scientific knowledge of the time, and boxed. The Michigan orchard, like its owner, had aged. New problems in diseases and cultural methods presented themselves.

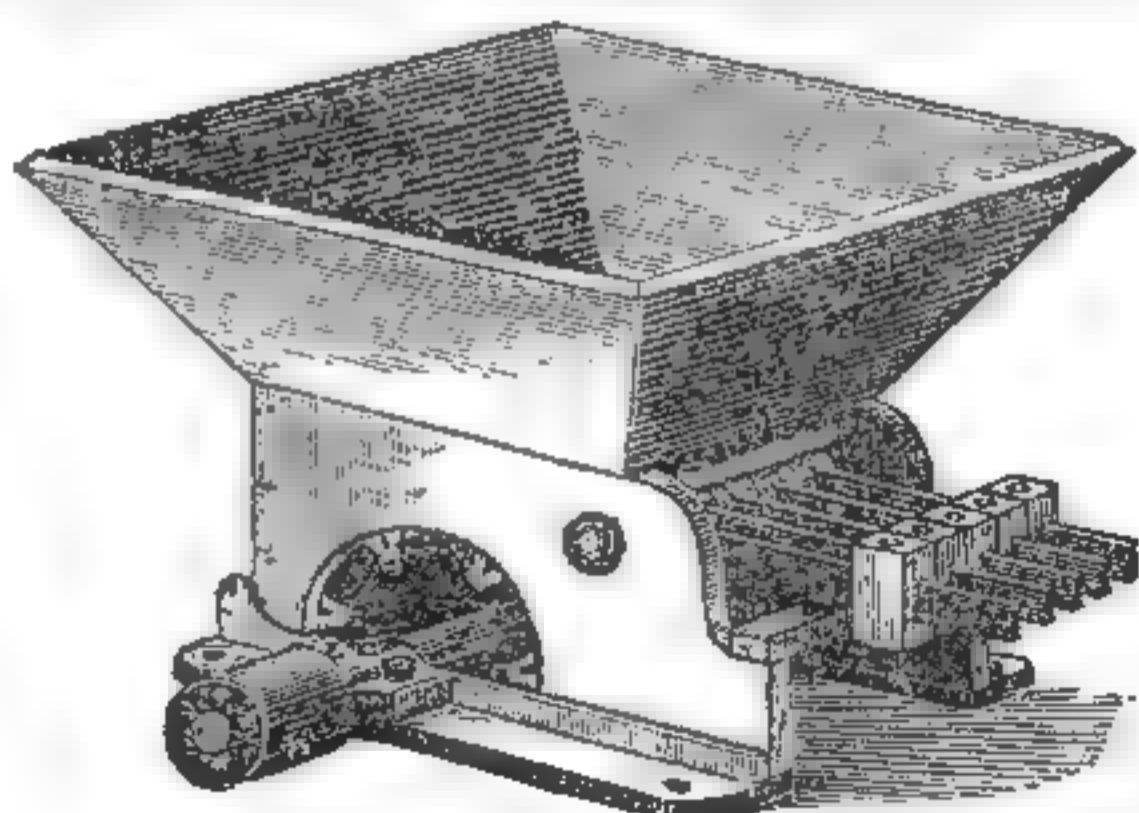
In recent years the orchard has again been made productive by modern methods of spraying, pruning, and careful management generally.



Ragan's Cider Presses
Capacity 25 to 30 barrels per day; easily worked; very compact; of immense power. Not liable to get out of order. Gives universal satisfaction. Manufactured only by **EWALD OVER, INDIANAPOLIS, IND.** (Send for Circular.)

Commercial apple graters and cider presses were advertised to large growers and cider mill operators. American Agriculturist, 1878.

APPLE GRATER.



This Grater is first-class in every respect; has iron cylinder, iron frame, steel knives, adjustable concaves, and is not surpassed for quantity or quality of work.

PRICE REDUCED TO \$40.

For catalogue of cider machinery and other information valuable to cider-makers, address

BOOMER & BOSCHERT PRESS CO.,
Syracuse, N. Y.

CHAPTER III

The Apple Paring Bee

Apple paring bees were sometimes spontaneous affairs, announced by boys and girls to one another at the one-room school, and the neighbors were brought together at short notice. But at other times they were heralded for days ahead, and pumpkin and mince pies were set aside as part of the refreshments. Sweet cider, with possibly just a bit of sparkle, was permitted by the conservative home loving, church going folks. Those who can recall these events are now advanced in years.

When a paring bee was planned for the evening, the chores were done early. One of the younger male members of the family, on horseback, galloped from one end of the neighborhood to the other announcing the bee to be held that night.



Show this picture to the ladies—they'll be particularly interested. The average age of the dresses worn by the women in the picture is 125 years. Here we see the ladies of the Wayne, Ohio, Congregational Church, re-enacting an old time paring bee, wearing dresses handed down from their great-grandmothers. Some of these dresses were worn at paring bees five generations ago.

In those days before the telephone, a horseback rider approaching at break-neck speed was regarded with mixed feelings of misgiving and

joy. The rider might be a messenger seeking help after a serious accident; he might bring an important message—or glad tidings. Certainly the announcement of an apple paring bee was always regarded with joy by every family in the community.

Pumpkin and mince pies, and sweet cider, were not the only delicacies served at the paring bees. The entire storehouse of farm food resources was raided for such an event. If a day or two elapsed between the announcement and the event, this period was marked by unusual baking and cooking activities.

One of the old time favorites was baked beans with an abundance of butter and rich fat pork, served with a dash of vinegar. Spare ribs baked in the old elevated oven stove were served with the finest bread that the housewives of the neighborhood could bake. Mince pies which had been frozen and stacked away in a cold room at the far corner of the house were thawed out, brought to piping hot, and passed around to the guests.

Hard work and out-of-door activity gave everyone a hearty appetite. In those days there was competition among the young housewives and eligible girls of the neighborhood to determine who could bake the best loaf of bread, the best pan of beans, and the best applesauce cake to be served at a paring bee. Applesauce cake was a tradition reaching back for generations.

The paring bee attracted every inhabitant in the neighborhood. The old ladies rocked and knitted while the old men smoked their pipes, pared and sliced apples, which they munched as they exchanged views on politics, varieties of apples, methods of farming and breeds of live stock.

Such events were ideal for bringing out reminiscences. The old men and their faithful wives had done their part in clearing farms and establishing the homes, orchards, and communities that formed the pattern of life they then enjoyed. While wives and daughters pared and sliced, and strung apples for drying, many skeletons were dragged out of closets, dusted off, and given new glamor in the community's memory.

The bashful boy hesitatingly edged his way into the bee with his new jack-knife, near to a certain retiring girl, so that he could pass her the nicest, largest and most perfect red apple. This was his highest compliment—the red apple was the first evidence of affection which a lad might dare to show. The paring bee was a highly favored rendezvous for the young, often the setting for the first gestures of affection that developed into marriages and families to take the place of a passing generation. And now their generation, too, is long gone and all but forgotten.

Sleepy little children were packed in rows on the feather beds in bedrooms and spare rooms. There were always plenty of youngsters in every



The highest elevation on the farm was favored by the pioneers for their orchards. The fruit tree agent was alert to note any slight rise in ground, and loud in its praise as a possible orchard site. Above: A typical location selected by pioneers who came to Andover, Ohio.

community, for large families were entirely in order. The home-building, family-raising motive dominated the lives of America's pioneers.

Few Americans living today can conceive of the home equipment and furnishings of those days, unless they have been reared in an old farm home which has been passed down from generation to generation. How many can recall such a home and its furnishings—the old fireplace or the big box stove, with pipe connected to the big chimney; the elevated-oven cookstove, with long slender curved legs and spreading hearth.

The apple paring bee as a social affair dates back to the days when the woman in the home cooked at the fire place, a technique now long forgotten. One associates with it brass candlesticks, with tiny flickering flames casting faint illumination in low-ceilinged rooms. But the apple paring bee continued into the days of the kerosene lamp, in fact for a quarter century after its first appearance.

The mere routine of paring apples was hardly sufficient for the friendly folk of the past century. Music, the old time games, and in some homes old time dances were culminating events which made the paring bee something more than work that had to be done.

There were numerous ways of entertainment which were sufficient for self-reliant groups. Singing was more than recreation; it was a part of the life of the community, fostered by the singing school and the church. Those who have turned back the hands of the clock to the early days of the last century, and have caught a vision of the way people lived in thousands of communities, know that their recreation was of simple, wholesome type. Usually it was under the direction of the neighborhood's recognized leader. The old songs were sung, the old games played, and in the less Puritanical neighborhoods the old dances were danced to the music of the "wicked fiddle."

The paring bee attracted every element: the country squire or justice of the peace, the town officials, the schoolmaster, the minister, and any strangers who happened to be stopping that way. The soldier back from a campaign, even in the days of the Indian wars, was a natural center of attraction. Just like the young folks of today, the young men and women listened eagerly to his recital of adventure.

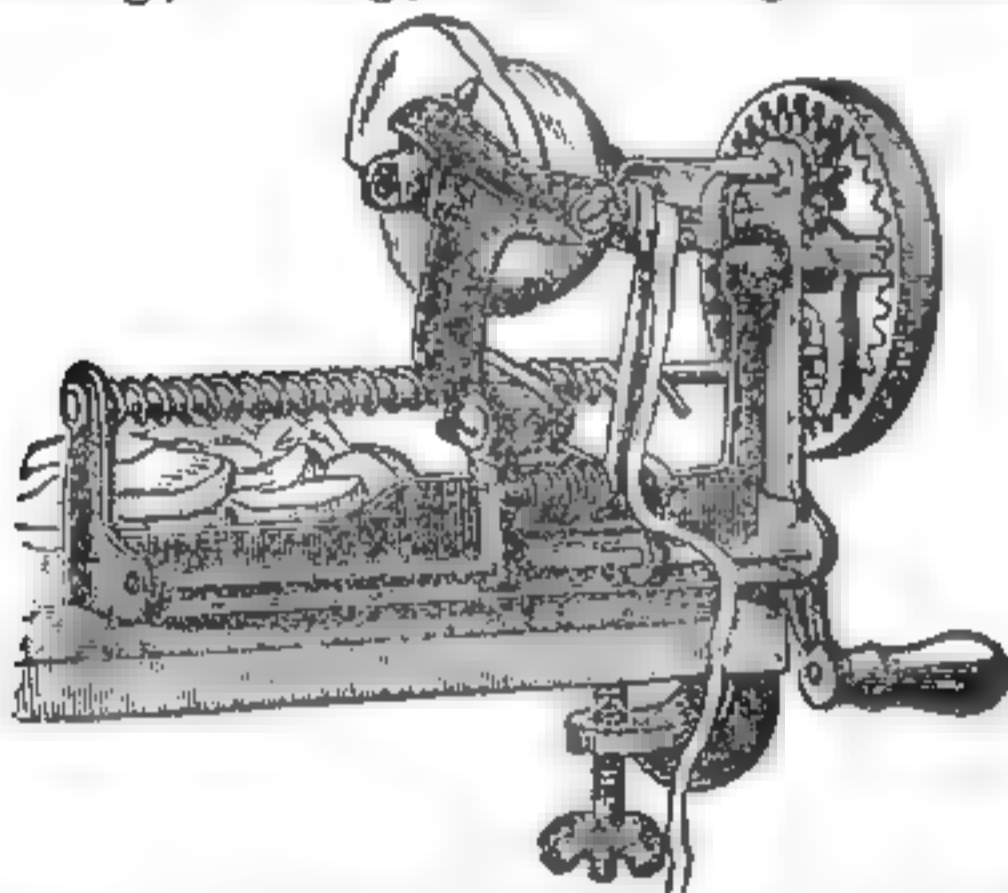
The sacred things of life were not forgotten. Those who were in need were brought to light, and means of assisting them were decided on. The religious life of the community was discussed. New churches, new school houses and new roads were projected, and determined upon by the men of the community.

Midnight was a late hour, the time for bundling up sleepy children, gathering up dishes, and setting out for home by bob-sled or wagon. The parting had a religious significance, and the minister presided with a benediction.

Such was the pattern of life, in the days when paring bees, husking bees, and the last day of school all were memorable events in the lives of Americans.

BAY STATE

Paring, Coring, and Slicing Machine



One of the most ambitious attempts to combine paring and slicing operations in one machine. Chiefly used to prepare apples for drying, it was offered in both family and commercial sizes, and enjoyed a wide sale. From American Agriculturist, 1878.

The only practical Parer and Slicer known. We make a common size for family use, and a Mammoth No. 1 weighing 11 lbs., and Mammoth No. 2, with steel arbors and bab-bit boxes, weighing 14 lbs., for factory use. Either of these machines will pare, core, and slice a bushel of apples in 10 minutes. **GOODELL COMPANY,**
Antrim, N. H. Sole Manufacturers.

CHAPTER IV

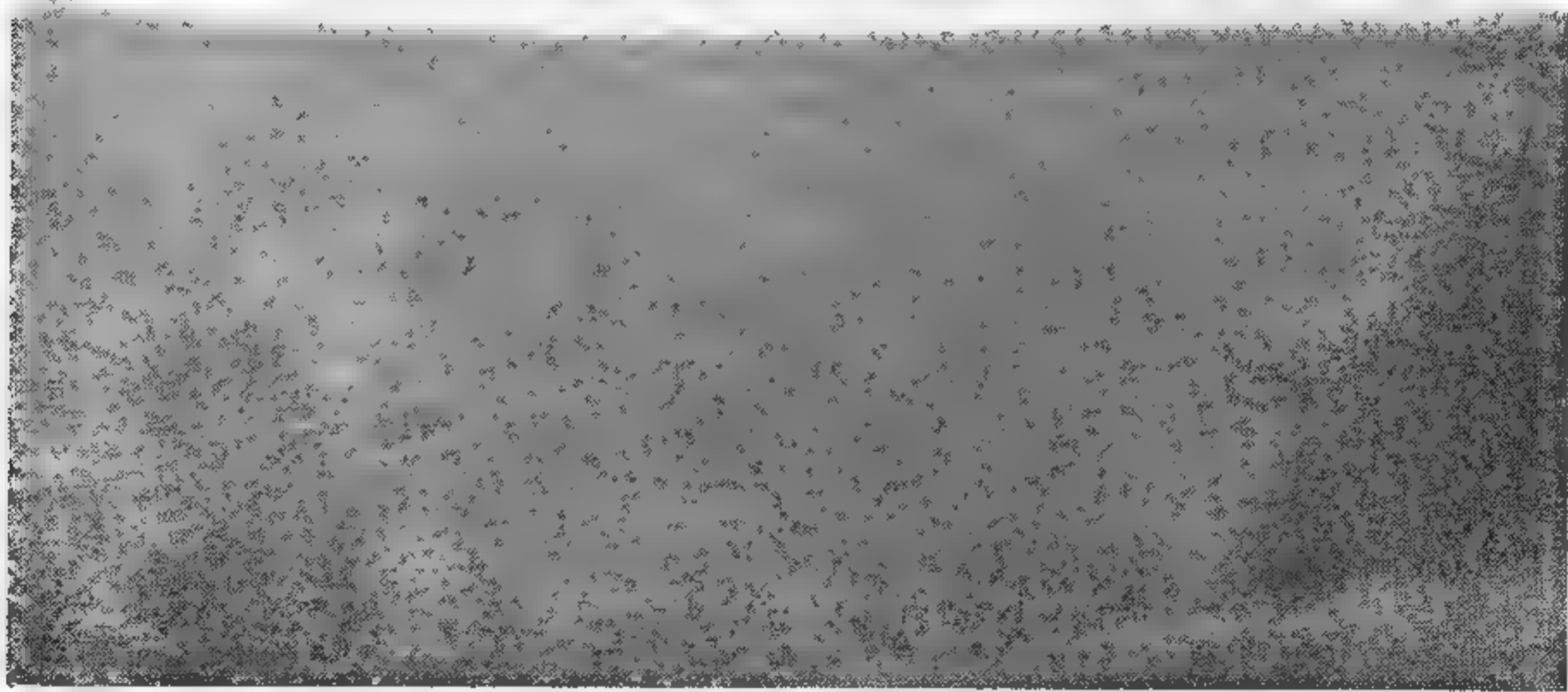
The Fruit Tree Agent

The rich red coloring of the apples and other orchard products in the fruit tree agents' prospectuses was an eternal fascination for youth. In the prospectus apples were perfect, and it seemed to the young folks that they would grow just that way, if bought from the agent.

Agents were lavish with forecasts of bumper crops from quick growing trees, and they pictured markets all but starved for their wonderful new varieties.

The glib salesmen clinched their arguments by pointing to the magnificently colored apples in the lithographed prospectuses. Children often influenced the purchase of unusual varieties by their clamor, "Papa, I want apples like that," and usually one or two trees of that variety were purchased. By the time all the brothers and sisters, and mother and grandmother had been given their choice, a planting of widely mixed varieties had been selected, and the salesman was always sure to get all the names of varieties and numbers into his order book.

He patted the children, gave them pennies, and predicted a wonderful future in orcharding for such a bright family. He described the life of dignity and ease that the youngsters would attain when the orchard was in full bearing. His word picture of a magnificent hillside orchard, with branches bending to the breaking point with marketable varieties, created a vision of financial success and social security.



This type of fruit tree salesman always oversold. He imposed hardships upon many poor struggling farmers and their families. His prices

were high, and the family was obliged to borrow and sacrifice to meet payment for trees for which they were many times overcharged.

The glib talker did the selling, but he was followed by a "hard boiled" personality to do the delivering and collecting.

But these men played a part in the great scheme of things in the past century. Many of the old time orchards were sales achievements of flashily dressed fruit tree agents. They also sold to the hard-headed farmers who drove shrewd bargains, got what they wanted, and were fortunate in securing trees true to name. These transactions were the start of many orchards which brought family prosperity.

In contrast to the high-pressure type was another agent, the local man who carefully avoided sales pressure, and so was often "scooped" by the whirlwind salesman. The staid dependable order-taker carried the same beautifully lithographed prospectus, but didn't have the glamorous talk.

One whom the writer recalls was an old preacher whose life had been filled with tragedy. He lived alone, supplying pulpits now and then during the absence of the regular ministers. Frequently he held services in school houses, taking his subsistence from the collection and invitations to dinner. He added to his meagre income by taking orders for fruit trees. Many people in the community bought merely to help him, and the trees suffered due to their luke-warm interest in their purchases. Others bought because they wanted trees, and their purchases were more productive. But the cream of the business was skimmed off by the traveling agents.

During the fruit tree boom period, in the middle of the past century, many young men were casting about for an easy and spectacular money-making career. Some went to the gold fields, some became land sharks, others lightning-rod and fruit tree agents. Of course, not all of them turned out to be questionable characters. Some young men became well established in agriculture and business after starting as successful fruit tree agents. There were communities that produced many agents, who caught the inspiration of selling one from the other. Successful salesmen initiated others into the business, sometimes traveling distant sections of the country and working as a crew.

Conneautville and Springboro, in northwestern Pennsylvania, nurtured a clan of fruit tree salesmen, and the famous Powell Brothers, proprietors of the nationally known Shadeland Farms, financed themselves for bigger things by fruit tree selling.

In "Yonder Lies Adventure!" Col. E. Alexander Powell tells the story of his father, E. A. Powell, and his uncle, William, taking up the work of canvassing for a nursery firm. He says: "This work gratified their youthful craving to see the world, for it took them far afield, west to the Mississippi Valley and south to the Gulf of Mexico. It also pro-

Practically without exception, the splendidly colored prospectuses of fruit tree salesmen were lithographed in Germany. Each salesman's book had a value of \$10 to \$20, or more. American distributors advertised the plates which were purchased by nurserymen.

DEWEY'S COLORED FRUIT PLATES, 650 VARIETIES,

Embracing all the popular varieties of Fruits, Flowers and Shrubbery sold by Nurserymen. Catalogues furnished on application, by mail or otherwise.

Plate Books on hand, all saleable varieties—at \$10, \$15 and \$20.

20,000 Colored Plates in stock—ready to fill orders.

Plate Books put up to order in from one to three days.

N. B.—Visitors to the Pomological Convention, to be held at Rochester, September 15th, are requested to call and examine varieties and samples of new plates.

Address orders to D. M. DEWEY,
Horticultural Bookseller,
765-2t Rochester, N. Y.

vided them with the opportunity to observe conditions in many sections of the rapidly growing country, to acquaint themselves with its political, economic and agricultural problems. And they missed no opportunities to acquire knowledge, to broaden their horizons. Thus, whenever they stopped at a town where lived a man of note, they made it a point to call on him. In these days such a call would smack of impertinence, but three-quarters of a century ago our great men, particularly in the west and south, were less hardboiled, and received the eager young Pennsylvanians cordially, frequently insisting that they stay for supper and the night. In this way my father, though in his early twenties, formed friendships with statesmen, financiers, soldiers, editors, educators and theologians for many years, as attested by his correspondence with them. It may be doubted if there were many young men of the time who numbered among their friends such national figures as Stephen A. Douglas, Horace Greeley, General Winfield Scott, Jefferson Davis, William Lloyd Garrison, Leland Stanford, William H. Seward, Artemus Ward and Mark Twain."

Colonel Powell writes of his father and of his uncle: "In the late '50s and early '60s, traveling salesmen enjoyed few of the comforts that today are taken as a matter of course. My father and his brother covered the greater part of the south and west on horseback, usually over abominable roads, carrying a change of clothing in their saddlebags and putting up for the night at farm houses or wayside inns.

"When Fort Sumter was fired on," Colonel Powell relates, "my father and two of his brothers were selling trees in Georgia. Realizing that in the excited state of public opinion the south was not a healthy place for the sons of a prominent abolitionist, they hastily wound up their affairs and made their way to Washington. There they called upon their congressman who invited them to accompany him to a White House reception. It was a very grand affair, or so it seemed to them; spacious rooms crowded with men in evening dress or uniform, women in daringly low-cut gowns, an orchestra playing behind a screen of palms. The three tall awkward lads stood uncomfortably along the wall, acutely conscious of their unfashionable clothes, more than a

little awed by the brilliance of the scene. In due course they were presented to President Lincoln.

“ ‘Wait until these other folks go, boys,’ he told them, ‘I want to have a talk with you.’ ”

“After the reception had ended, the President led his young guests to his study on the second floor. Dropping into a capacious armchair covered with horsehair, he stretched his long legs before him.

“ ‘Draw up your chairs, boys,’ he said hospitably, ‘and make yourselves at home.’ ”

Colonel Powell continues: “Though the Civil War had begun and Abraham Lincoln was the busiest man in the nation, he kept the three youths until after midnight, interrogating them as to conditions and public opinion in the rural districts of the South, discussing agricultural topics, and occasionally telling a dryly humorous story. He was, as my father often put it, as easy as an old shoe, for like most truly great men he had the faculty of putting others at their ease. Nor would he let them leave until they had had something to eat—sandwiches and cake left over from the reception—remarking that he knew from experience that country boys were always hungry. Of all my father’s vast store of recollections, I think the one most clearly etched on his memory was of the rawboned, kindly, careworn man who accompanied him and his brothers to the door of the White House, clapped each on the shoulder as he shook hands, and said ‘Good luck and God bless you, boys. The next time you are in Washington come and see me again.’ ”

A PARTNER WANTED IN A NURSERY.

HAVING A FARM REQUIRING ALL MY TIME AND attention, I am desirous of getting some active, responsible man, having a knowledge of the business, as a partner in my nursery, to whom I would give an unusual good chance. I have a good start, and plenty of land adapted to growing trees, so the nursery can be enlarged to any extent required to meet the demand. I have probable 10,000 trees ready for market this spring; 40,000 3 and 4 years old ready for market this fall and next spring, and an equal number each, one and two year old coming forward, and intend grafting 50,000 apples this spring.

I set last fall about 5,000 buds of peaches, pears and cherries on good stocks, and have all the apple, pear, plum and cherry stocks that may be wanted until others can be raised—I will dispose of one-half to the right kind of a partner for what it is worth, and wait for my pay until the stock is sold. I would like a partner to furnish a team and tools to carry on the business, and I would furnish equal value in something else. Any one wishing to engage in the nursery business, had better come and see the nursery grounds and the country. I am sure he could be suited. Address JERVIS D. ADAMS, 377w2 Climax Prairie, Kalamazoo Co., Mich.

WE OFFER THE FOLLOWING SPLENDID STOCK OF Trees, Shrubby, &c., in prime order at the prices annexed for cash or approved paper at short date. We have not been subjected to the extreme degrees of cold experienced in New York State, and which we are informed has done much injury.

50,000 Standard Apples 5 to 8 feet.....	\$90 per 1,000.
5,000 or upwards.....	85 " "
or	12 " 100
1,000 Dwarf Apples 1 and 2 years old....	20 to 25 " 100
5,000 Pears, Dwarf, 1 year old.....	20 per 100
do do 2 years old.....	25 " "
Selected	35 " "
3,000 Standard Cherries 5 to 7 feet, fine..	18 " "
500 or upwards.....	16 " "
do do 1 year old.....	10 " "
1,000 Dwarf Cherries 1 yr old, very fine..	20 " "
12,000 Peaches 1 year, vigorous growth....	80 " 1,000
do do do do	12 " 100
Plums, Apricots, Nectarines, Currants, Raspberries, Ornamental Trees, Roses, Evergreens, Shrubby, and Greenhouse and Bedding out plants at lowest rates. 374w3	
Toledo, O., Feb. 20, 1857. A. FAHNESTOCK, Pres't.	

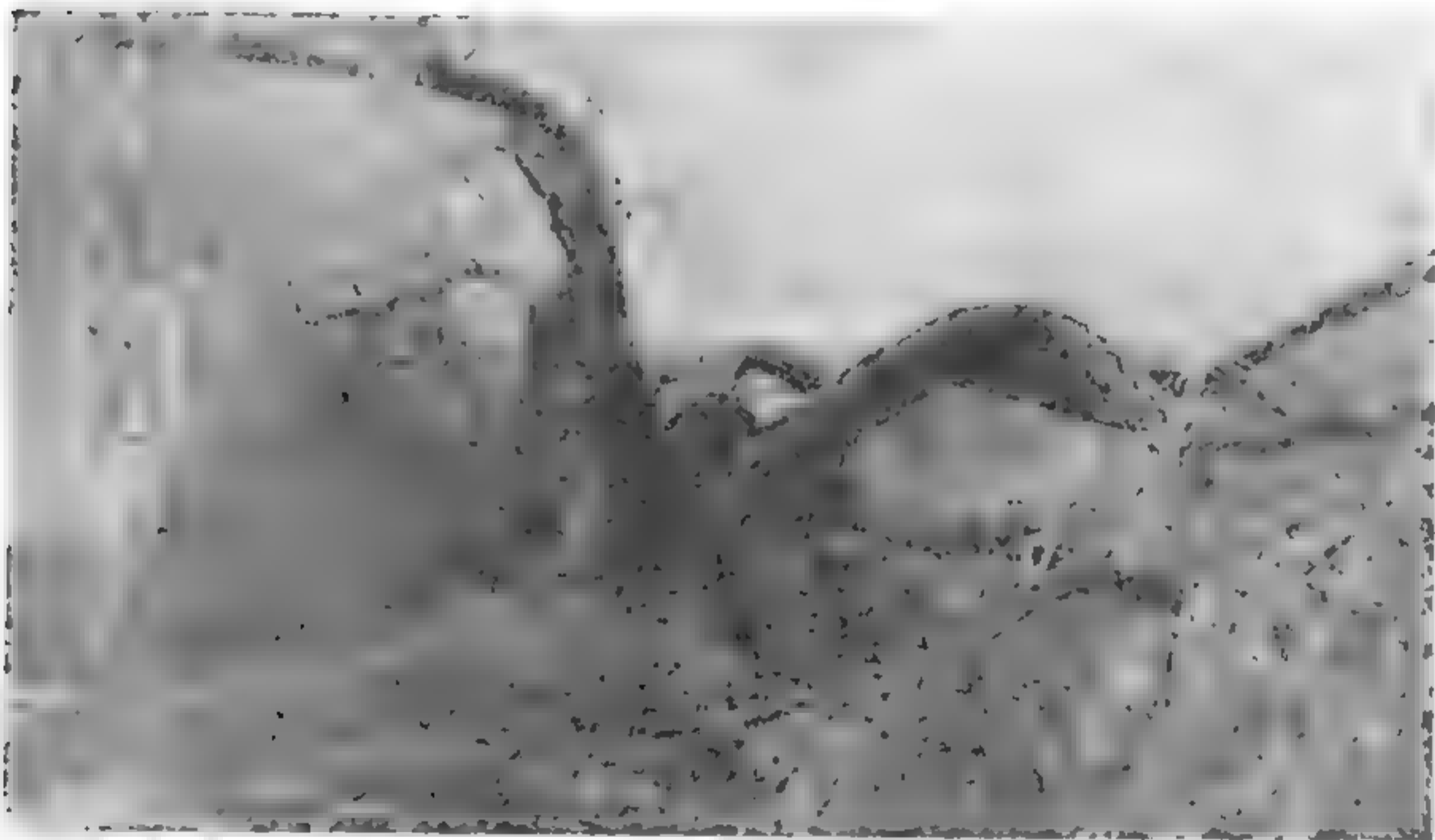
Advertisements that tell a story of the nursery industry's development in the middle west in the pre-Civil War period. These pioneer nurserymen used the Rural New Yorker in 1857 and 1858.

CHAPTER V

The Old Tree Grafter

"Uncle John," as we spoke of him, was the old neighborhood fruit tree grafter, a character handed down to us from an earlier age. He was a man who in his day had enjoyed prosperity and some distinction, and had seen something of the world.

His visits about the neighborhood in the spring, grafting fruit trees from his stock of selected scions, were welcomed by the boys and girls. He was of the congenial type, at home everywhere, especially making friends with the young. In their minds he was wise indeed, enriched by years of experience.



A casualty of storms, this ancient apple tree in Hillsdale County, Michigan, was planted before the Civil War, at a time of extensive plantings in Michigan.

Earliest memories of this unusual character included his lame horse and his "rattle-trap" buggy which had almost served its full hundred years. Uncle John's travels were over three or four townships. He knew every apple tree, and during the dormant months drove from place to place gathering his stock. All the scions were bundled, and he wrote on a tiny smoothly whittled whitewood splint the name of the variety or of the particular tree. Maybe it was from the blushing red fall sweet apple back in the Brown pasture—the name was there, and we knew the tree. Uncle John knew all the characteristics, and whether or not

it was an alternate or annual bearer. He could always tell the boys where they could go to get the best apples at any time in the bearing season. This was done with the warning not to club the trees, and always ask the owner. He cautioned against wasting and throwing apples around wantonly. His admonitions carried weight—and were always given, even though he might be somewhat over-refreshed with apple juice.

No one ever thought of charging for his lodging, and the boys and girls jostled each other for places beside him at the dinner or supper table. His stories about the old days as a canal boat owner and captain were especially fascinating. Next to being an apple tree grafter, the life of a canal boat captain seemed the pinnacle of romantic adventure. We knew that he had had a family in his prosperous days, but he kept strangely aloof from his folks in his later years.

For a country boy or girl, the months passed slowly. In spite of the active routine of chores, attending country school, getting in wood and cutting kindling every night, time dragged. Every boy longed to be a grown-up, doing something important such as running a threshing machine or a saw-mill. The girls of the neighborhood were kept busy helping their mothers after school with the dishes, the churning and the washing, or caring for younger children in the family.

Along with the activities which occupied the lives of boys and girls, we also had our anxieties, and one of these was Uncle John. An accident had befallen him; he was in "the poorhouse." It was then that we realized what a deep regard we had for the old man.

The story passed around the neighborhood that Uncle John would never be back, but back he was in early spring. There seemed to be an urge, deeper and more powerful than conscious thinking, that stimulated him to carry on his work.

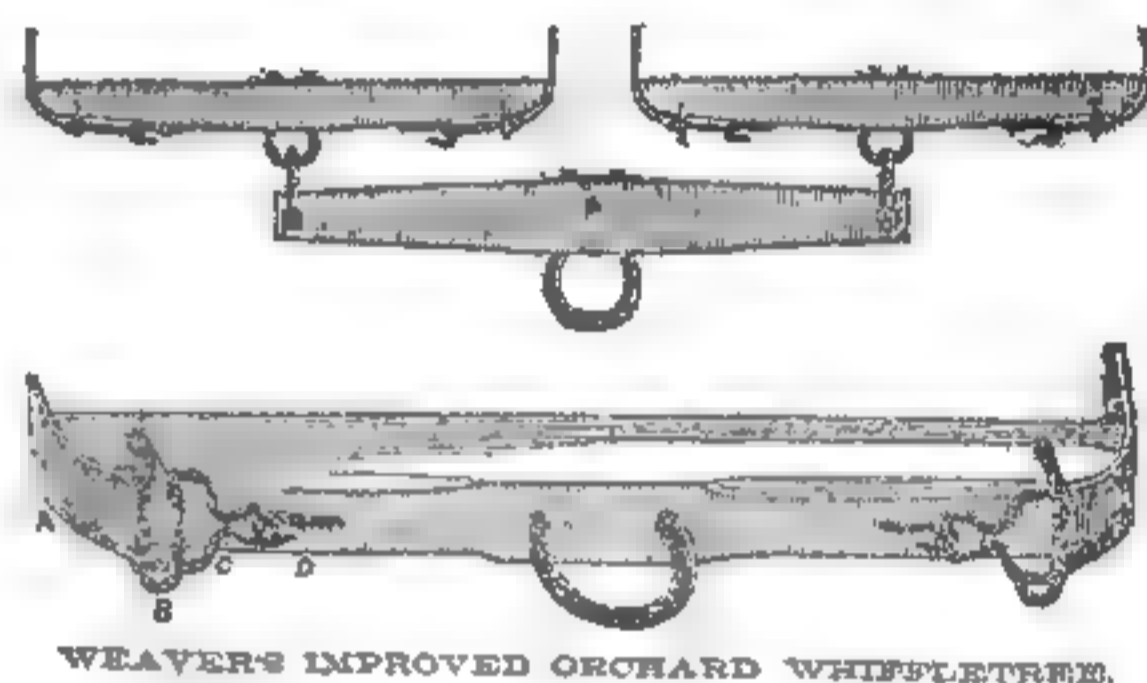
From that time, to the end of his life, he was obliged to use crutches. In place of the old dilapidated buggy he used a little wagon in which he placed his tools, bundles of scions, and some needed clothing. Slowly plodding down the highway to his next job, he presented a pathetic spectacle. He was more than ever a welcome guest in every home, because of his infirmities. As he approached, some youngster would hurry to meet him and offer help. Farmers put themselves out to give him a lift from one place to another. He finally took to riding about on milk wagons each spring season. Every community had its cheese factory, and its net-work of milk routes hauled by farmers. These routes overlapped so that Uncle John could catch one wagon and then another, traveling as far as a dozen miles in a day.

Boys and girls crowded round to see his gnarled old hands deftly fitting the scions so that the vital fluid of the tree would nourish the slender graft. He always made much of the strange fact that no matter

how sour the apples a tree might produce, you could graft sweet apples on it and you would have sweet apples. The way he told these things was fascinating. It was a lesson in science beyond the most advanced school books we had in our one-room school.

When Uncle John was in circulation it seemed that every volunteer tree in every fence corner in the neighborhood was grafted and bearing fruit. A year or two after they were grafted the farm owner would transplant them and Uncle John kept track of each one of them as he would a favorite child. He wanted every young tree to have a good home, good surroundings and good care. Uncle John preached apples, talked apples, lived apples—and sometimes even drank apples, a little too freely. The abuse of a tree caused him real grief.

The "streamlining" of orchard equipment goes back at least 80 years; the old-time orchardist was interested in protecting his trees against injury. Look at this patented stream-lined whiffletree, invented to serve the same purpose as today's round-topped tractors, sprayers and other orchard equipment. From the Rural New Yorker, 1863.



He did a great deal of trimming. He would urge indifferent farmers to remove dead limbs and thin out the tops. If there was a dead or a useless tree in any orchard for miles around, he could not rest until he had successfully urged the farmer to replace it with a productive one. Due to the old tree grafter, every farm orchard within his orbit bore better fruit, contributed more to the happiness and the welfare of the home, and made a larger contribution to the economic success of the community.

During the summer, fall and winter, Uncle John always carried a few apples in his pockets, and usually more in a sack. He would divide them with boys and girls as he stopped to visit the country school. The last apple in his pocket he would quarter, and then halve the quarters and pass them around to the youngsters.

The old man, poor in worldly possessions, estranged from his family, made a worth while contribution to a wide community, although he was never repaid in social status or wealth. He gave good advice that was heeded by some and ridiculed by others. Year after year he argued with farmers for mowing the grass from under apple trees, and doing this without feeding them. He used to say: "Don't head your apple trees high—we don't have any giraffes in this country. Get them down where the boys and girls can pick and enjoy the fruit without using clubs and stones."

Uncle John reached the age when he couldn't get around much. Neighbors looked after him more and more. He saw new enemies come to the orchard and the farm, destroying many of the trees he loved. He saw farmers neglecting their orchards, and turning their enthusiasm to other lines. Poor, old, lame Uncle John lived to see his numerous little friends, the children with whom he had so often shared apples, grown and scattered. He saw the apple trees which he had nurtured, neglected; he could see some of them from his shanty window, and he was saddened by the knowledge that it was like that almost everywhere. One morning word was passed around the neighborhood that poor old John was dead.

Trees on the writer's home farm are bearing today, unforgetfully honoring the memory of the fruit tree grafter, Uncle John Harvey



"A True Friend," this 20-year-old sprayer, in splendid condition, has played its part in the development of the 350-acre Grand River, Ohio, Orchards.



Nature is often a capable orchardist without man's assistance. Many an isolated tree bears splendid apples for years before any human being discovers it—if it is discovered. The ancient apple tree shown above "just grewed." Spared by early settlers, it still bears alternate years—a good early cooking apple comparable to the Yellow Transparent.

CHAPTER VI

Early Apple History

The apple's use as a means of temptation is recorded in the Holy Writ. Every child knows the story of Adam and Eve, and the apple's lure that led to the first sin.

This is evidence of the high esteem in which the apple was held in the ancient world, and there is a parallel between Biblical history and other early history regarding the apple.

Wherever the Garden of Eden may have existed, the apple was probably born in its vicinity. Research points to a mountainous area south of the Caspian and Black seas as the place of the apple's origin. Those who hold conservative views of Biblical history place the Garden of Eden, whether actual or legendary, in this part of Asia.

Before the dawn of recorded history, ancient peoples were in constant turmoil. There were migrations as stupendous as those to our far west, and evidences of them have been found by archaeologists, linguists, and research workers.

A great wave of people migrated from Asia into Europe, centuries before the Christian era. They were people whose pattern of life was far in advance of their times. They had progressed far beyond the sulking, crouching animal type of human being. They were masters of

the ox. They knew how to build a crude yet serviceable form of cart. They knew the culture of grains, and were familiar with fruits. Coming as a flood from the southeast, overrunning Europe, they were the "fair haired Achaeans" in the days of Homer's Iliad, and spread southward into Italy in a prehistoric age. Even this wave may have been preceded by an earlier wave. Remains reveal that the Lake Dwellers of Switzerland, thousands of years before, carved historical records. These remote people were lovers of apples.

Apples occupied such an important place in the lives of the early Greeks and Romans that stories of them are found in their literature and mythology. The legend of "The Apple of Discord" goes back to Homeric days, eight to ten centuries before Christ. This story, to the effect that a golden apple was cast among the deities by the Goddess of Discord, has lived for nearly three thousand years. Venus, or Aphrodite as the Greeks knew her, was presented an apple by Paris, son of Priam, king of Troy. The apple was given in recognition of her surpassing beauty, and in this, Paris was using the same tactics as boys of the past century at paring bees, or at the one-room school.

Jealousy followed the presentation of Paris' apple and as the reader will recall from his mythology, the Goddesses Hera and Pallas were greatly incensed, especially Hera. She continued to intrigue relentlessly until she brought about the destruction of the ancient city of Troy. The "Wooden Horse" strategem, frequently referred to today, harks back to Troy's fall, prompted by goddesses incensed over an apple.

Apples were introduced in Britain in Roman times, and the student of words finds a striking similarity in the word for "apple" among all Anglo-Saxon tongues.

One great source of interest in apples and their culture was the monastery. Monks sought out isolated places, and through their labors drained swamps, terraced mountain sides, and made their orchards and vineyards abundant and fruitful. Ancient cultural methods were inherited by the knight, lord, peasant and serf of the Middle Ages. The legend of William Tell is just one more link connecting the apple of today with the romance of the heroic past.

At the time of the settlement of the earliest American colonies, apples were grown extensively from the south of Europe northward to the Scandinavian peninsula. Three centuries ago, more than three score varieties of apples were growing in the vicinity of London. The various waves of immigrants, the French to Canada, the English to New England, Maryland, Virginia, the Carolinas and Georgia, the Dutch to New York, the Swedes to New Jersey, and peoples from all parts of Europe to Pennsylvania, all brought with them young apple trees, seeds or scions, from which were started the early apple trees of the American continent.

When the first settlers came to western New York, apples were found growing on very old trees. The French explorer Celoron, arriving at the mouth of what is now Chautauqua creek, near Westfield, Chautauqua County, New York, in 1749 found many apple trees growing there, and named the stream River of Apples. The seeds may have been brought to the place by some Jesuit, or a trader or trapper making the journey over the old trail from the lakes to the headwaters of the Allegheny river more than two centuries ago. Other means of spreading apples were the Indians, and animals; deer were particularly fond of apples.

General Sullivan in accounts of his drive to break the backbone of the Iroquois, beyond the remote settlements in New York in 1779, mentions the destruction of peach and apple orchards which were bending with fruit. From such scattered trees came well adapted early varieties which surpassed in quality, color and flavor the apples grown in Europe.

The story of the improvement of seedling stock by grafting goes back to the early days of the settlement of America. William Fitzhugh, a member of one of the "First Families of Virginia," tells of his own plantation which included an orchard of 2,500 apple trees, most of which were grafted, and the orchard was "well fenced with a locust fence." There were few of the early plantations in Virginia that did not have orchards of apples and other fruits.



River of Apples, Chautauqua county, New York. This was so named by the early French Explorers, who found apple trees at the mouth of this stream. Hundreds of apple trees of a wild primitive type are still growing in thick tangled underbrush. The fruit is about as big as the tip of your finger, yellowish green.

Dr. S. A. Beach in his monumental work, "Apples of New York," says: "Perhaps the earliest recorded grafted tree brought from Europe (that of Governor Endicott is said to have been a seedling) was the Summer Bronchretien, planted by Governor Stuyvesant in 1647 in New Amsterdam, now New York City. It is said to have been brought from Holland, and its trunk remained standing on the corner of Third avenue and 13th street, New York City, until 1866, when it was broken down by a dray."

The revocation of the Edict of Nantes by the King of France in 1685 had a direct bearing on the orchard industry in America. French Huguenots who had enjoyed religious liberty in France for nearly a century found themselves deprived of their precious religious and civil rights. These people sought refuge in America, and one of their settlements was at Flushing, Long Island. Here was the famous Prince Nursery as early as 1732, and nearby the famed Newtown Pippin originated. The Prince nursery catalogs were, from 1815-1850, standard horticultural publications of the United States. The Prince catalog of 1845 enumerated 350 varieties of apples which met the approval of the management.

Although we hear and read of nurseries which were established as early as the opening years of the past century, competition for the growing trade became a definite factor a score of years before the Civil War. Rochester, New York, became a great nursery center, and other localities followed, including Dansville and Geneva, New York.

Commercial orcharding in the early days depended on a conveniently near market or satisfactory transportation. Fruit was shipped to the West Indies two centuries ago. While Benjamin Franklin was in London, 1758, he received from friends in America a package of Newtown Pippins, which kept well during the long ocean voyage. They excited the admiration of the famous Philadelphia Naturalist Bartram, and were highly praised by Franklin's English friends. Only five years later a considerable quantity of American apples was being shipped to England.

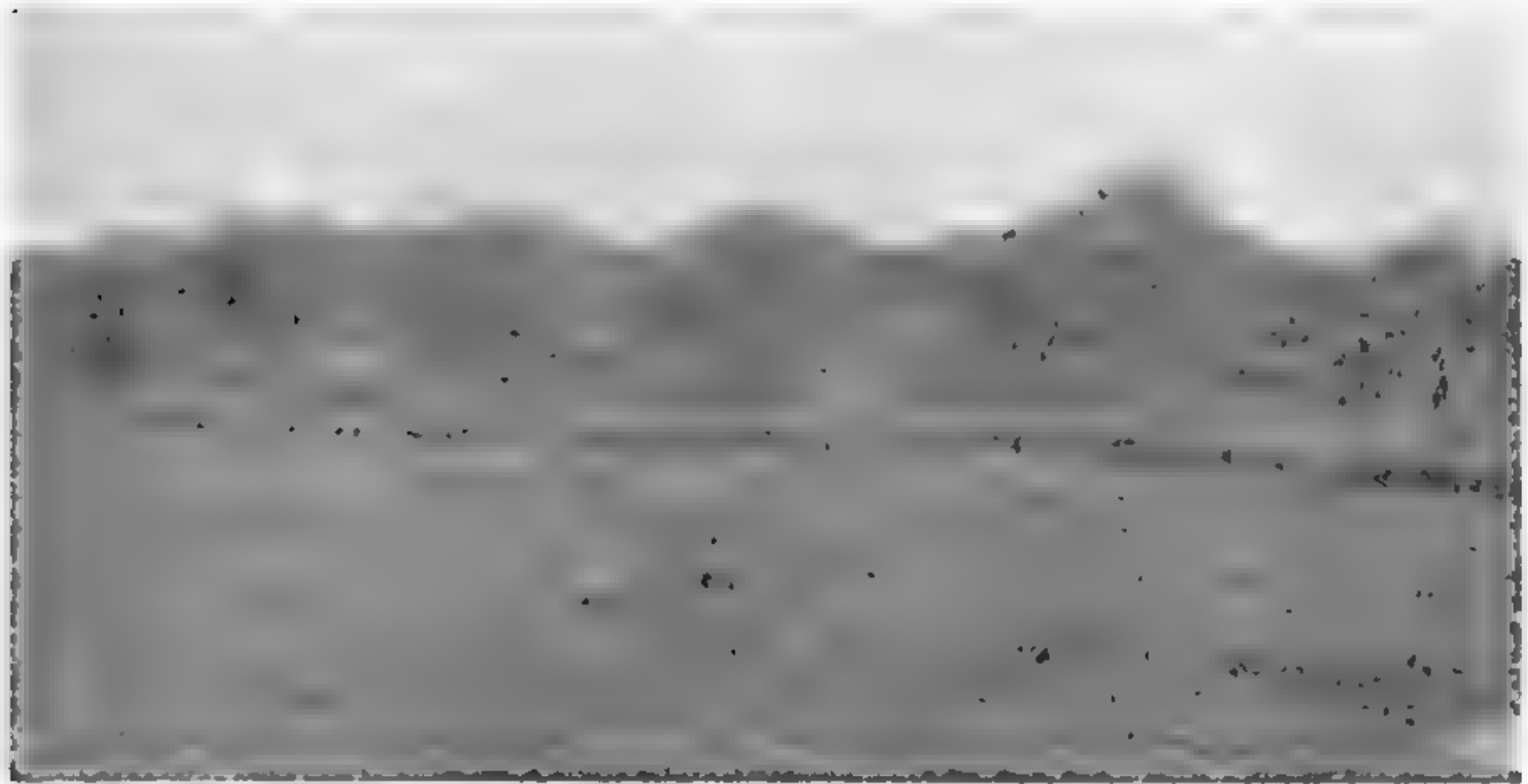
Orchards were early planted along the Hudson river hillsides. That river provided easy low-cost transportation.

With the opening of the Erie-Albany Canal, another canal connecting Philadelphia and Pittsburg, and growing canal systems in the various eastern states, commercial orcharding was encouraged. The favored varieties in those early years included the Roxbury Russet, Seek-No-Further, Gilliflower, Rhode Island Greening, Long Island Pippin, Tallman Sweeting, Summer Queen, English Pearmain and Spitzenburg. In later years came the Baldwin, Spy, Rambo, and many others.

The Ben Davis because of its splendid keeping qualities and rich red color became known among orchardists of Civil War time as the

"mortgage lifter," for the reason that it enabled many a farmer to meet the interest due, and make a substantial payment in the spring of the year.

With the development of railroads during the latter half of the past century, commercial orchards continued to increase with the spread of the rail network. Many of the pioneer states saw the development of commercial orchards.

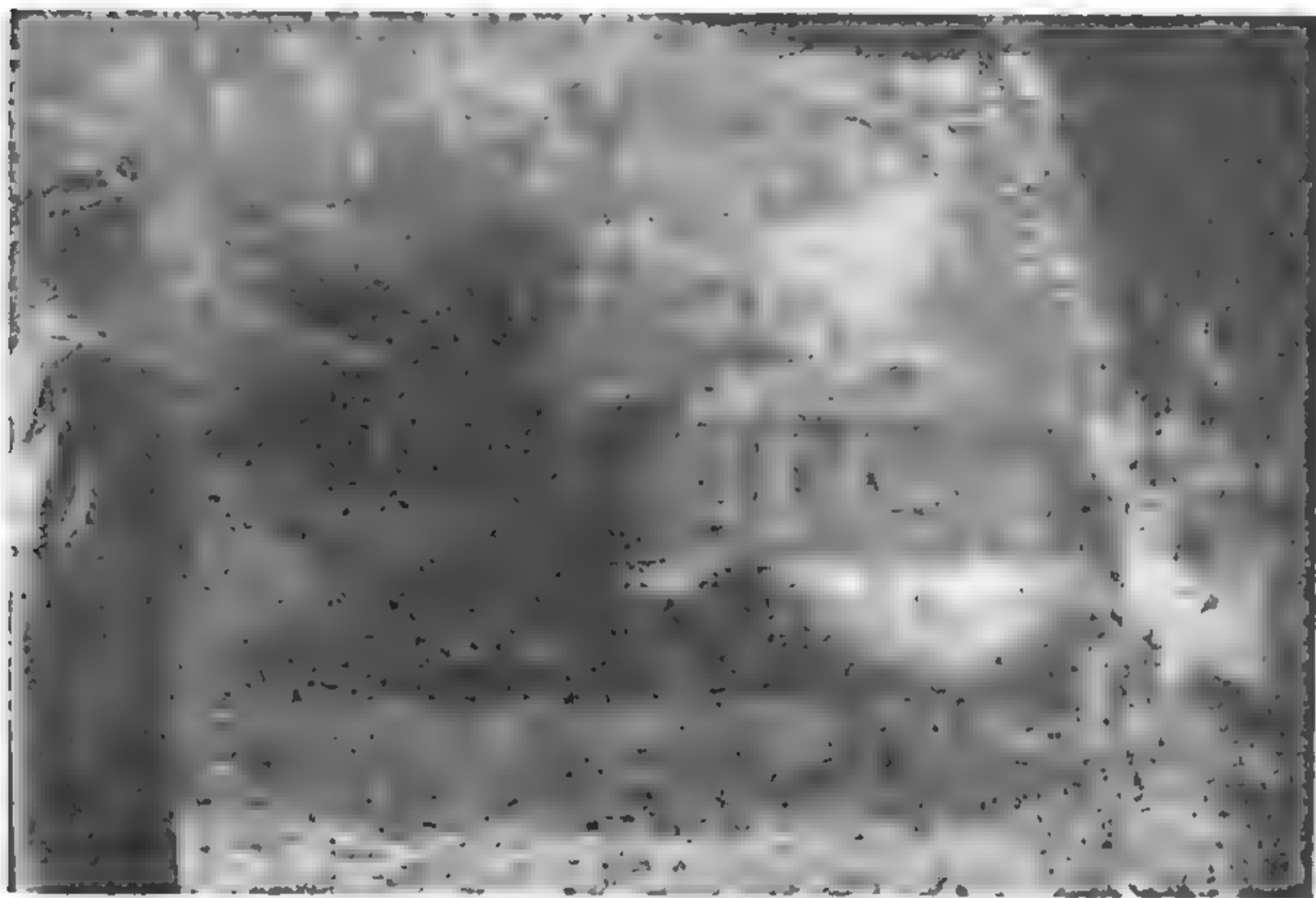


A cemetery with a numerous population is now a Niagara County, N. Y., orchard. The burial mound holds the remains of the last of the proud Erie Indians, slain in battle with the Iroquois. The extermination was complete and final. The orchard is on what was known as the Albany Trail, located east of Pekin Cut.

But wide-spread disillusionment came when the growers saw their orchards suffering from disease, and their product losing popularity in the markets because of the ravages of insects and diseases. Innumerable apple orchards were uprooted or neglected. In the memory of men and women now living, the apple industry seemed to be threatened with extinction by the ravages of pests and disease. So recently that it seems yesterday, orchardists and scientists undertook to solve the problems which threatened the very life of industry. And there has been no wavering in the battle against the pests and diseases that afflict the apple and other crops. It has been found that a determined offensive is the most satisfactory defense.

The apple traveled westward. Railroads were enthused over the prospects of agriculture along their rights of way. The planting of orchards was urged in Missouri, Arkansas, Colorado, Utah, Montana, Idaho, Oregon and Washington. The westward migration was stimulated by Horace Greeley's urgent advice to the young man, "Go west

and grow up with the country," and encouraged by state and railroad advertising—and by the spirit of an adventurous generation of young men and women. They were looking for new lands in which to build their new homes, just as did their parents and grandparents in their earlier westward migration.



In the midst of a venerable orchard set by pioneers of Western New York, at Salem, near Brocton, stands the old Mansion House where reigned Thomas Lake Harris, "The Pilgrim Prophet." Notables of the old world gathered here after the Civil War, including Lord and Lady Oliphant, famed throughout the British Empire.

CHAPTER VII

Pomology in the Virginias

It is not generally known that George Washington had a vital influence in stimulating apple growing, particularly beyond the Appalachians, in what is now West Virginia and Kentucky.

The Continental Congress, financially broke but generous with land, partly paid off Revolutionary soldiers with grants of land in and west of the Alleghenies. Carroll R. Miller, Secretary-Manager of the Appalachian Apple Service, Inc., Martinsburg, West Virginia, says that Washington was well acquainted with the land in the western area of the colony. He had traveled extensively as emissary of Governor Dinwiddie to what is now northwestern Pennsylvania. His career as a soldier and surveyor enabled him to get first-hand information on the possibilities of the western slope of the Appalachians.

Few of the ex-soldiers moved onto the land given them by Congress. Washington purchased many of their land warrants, and secured tenants. He stipulated in the leases that the tenant must maintain a certain number of acres of apple trees, to be kept "fenced, and in good tilth."

From these farms came a large part of the sizable business in apples that flourished along the then Virginia side of the Ohio River, a century and a half ago. The mountaineer rivermen built great white oak flatboats, loaded them with apples, and floated their cargoes down the Ohio and the Mississippi, as far as necessary to find buyers for the cargo and the flatboat. Often the flatboat was thrown in with the apples, and many an old southern mansion standing today was built with splendid timber which originally served the apple industry by carrying fruit to market. At the outbreak of the Civil War, there was a large traffic in apples between the North and the South.

While the influence of George Washington in "Old Dominion" and adjoining areas was marked, the apple industry goes back to the earliest days of the colony. W. S. Campfield, secretary-treasurer of the Virginia State Horticultural Society, Staunton, Virginia, tells that when the first settlers arrived in 1607, the only apples were the small unsatisfactory crab apples. But from the beginning, the colonists set out orchards. "The Virginia Company," Mr. Campfield says, "realizing the importance of developing a diversified and self-sustaining agriculture, took an important step in 1639. A law was enacted providing that whoever obtained a patent for a hundred acres of land should be required to establish a garden and orchard, protected by a fence, ditch or hedge.

"Three years later, Governor William Berkeley was instructed by the

Virginia Company to see to it that settlers 'apply themselves to the impaling of orchards and gardens, and that every planter be compelled, for every 500 acres granted him, to enclose and fence a quarter-acre of ground near his dwelling house for orchards and gardens.'

"Fruit growing, in the early colonial days, was for the purpose of securing a supply of 'most excellent and comfortable drinks.' The upper classes are said to have drunk wine chiefly. The middle classes drank pear cider and peach brandy, while the great mass of the population satisfied their thirst with apple jack or rum."

Apple growing, and the production of other fruits, grew by leaps and bounds. A third of a century after the first settlement in 1607, Governor Berkeley of Virginia had at his home at Green Spring 1500 apple, peach, apricot, quince and other fruit trees—and some orchards were said to have as many as 10,000 trees. In 1686 Col. William Fitzhugh of West Moreland county was reputed to have 2500 trees of many varieties of apples, and these had mostly been grafted. Col. Fitzhugh had the vision to care for his fruit. He said: "Preparation for an orchard is soon made, but without constant care the labor of seven years may be destroyed in as many hours."

Colonel Fitzhugh foresaw the possibilities of apples for dessert, served according to the practices of home makers of today.

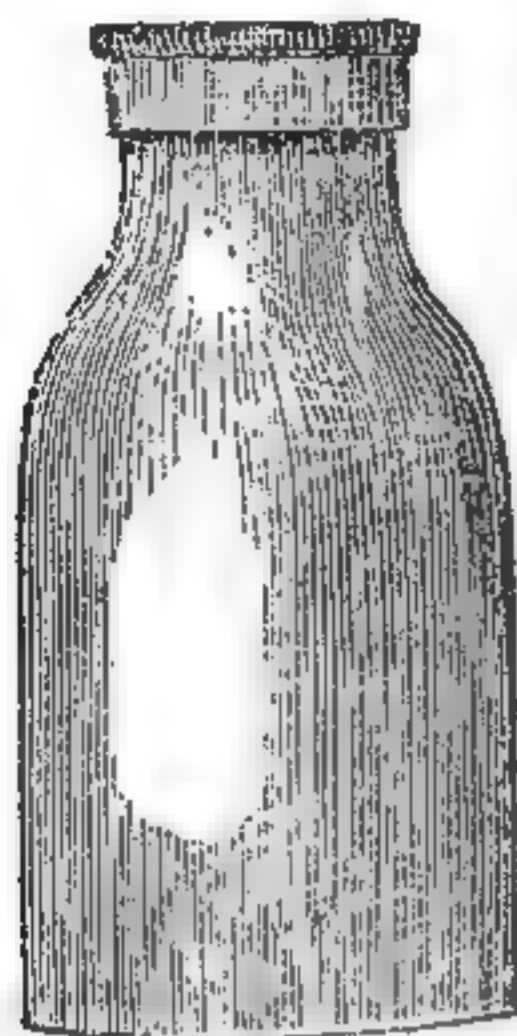
Commercial orcharding, however, really began in the early years of the 19th century, as previous to this time transportation facilities and markets were limiting factors.

Michel, a Swiss traveler who visited the Virginia colony in 1701, wrote: "Fruit trees are growing in great abundance. The apple trees are exceedingly fruitful; at many places I could not estimate the large quantities which were rotting on the ground. The cider is drunk mostly during the winter. As the common man does not have good cellars, this drink cannot be kept during the summer."

George Washington, unquestionably one of the most expert horticulturists of his day, had his distillery "wherein was made, every fall, a good deal of apple, peach and persimmon brandy." Sustaining Washington's reputation as a horticulturist are the provisions of a lease of 125 acres of land in Berkeley county for \$30. Washington stipulated: "Within three years there shall be planted an orchard of 100 apple trees, at 40 feet distance either way from each other, and 100 peach trees, the same to be kept, during the continuance of said lease, always well pruned, fenced in and secured from horses, cattle and other creatures that might hurt them."

After the Revolutionary War, and the return of Washington to Mt. Vernon, he was a victim of the marauders who are a plague to many orchardists. He wrote, September 10, 1785: "Depredations committed every night upon the few apples I have; I found it necessary, though

THE YEOMANS FRUIT BOTTLE,



THE Cheapest, Safest, most Economical and Convenient method of Preserving Fruit known, will be sold at the following, besides many other places throughout the United States:

In New York—by W. S. THOMPSON, Rochester; J. S. COOLEY & Co., Canandaigua; G. & G. EVERSON, S. P. PIERCE & Co., and W. E. POMEROY & Co., Syracuse; CHEAT & BRO, Auburn; LANGWORTHY, DANIELS & BURT, and A. O. NORCUTT & Co., Seneca Falls; C. WHEAT, Geneva; B. SMITH, Honeoye Falls; A. G. CARPENTER & Co., Le Roy; S. AINSWORTH, West Bloom-

field; J. S. POLER, S. SHERMAN, and A. SERVOS, Medina; E. SMEDLEY, Gasport; C. C. WALKER, and PAYNE & OL-

COTT, Corning; BENEDICT & HAND, Saratoga Springs; C. C. VOORHIES, Lyons; MILLER & CRONISE, Newark; B. & WALKER, CHASE, FERRIN and D. P. SANFORD, Palmyra; N. CRITTENDEN, Ithaca; SAMUEL JAYNE, Benton; JABEZ HAWLEY, Westfield; C. P. CALKINS, South Ballston; F. VAIL, Albany; S. J. WELLS, Fayetteville; DANIELS, BRIGGS & DUBOIS, Poughkeepsie; MEAD & MARVIN, Jordan.

D. C. ALLEN, Conneaut; BARNEY & COWDERY, Sandusky, and ANDREW LYNCH, Germano, Ohio. MITCHELL & HITCHCOCK, Kendallville; E. M. TALBOT, Fort Wayne, Ind. S. H. MANN, Beloit, Wis. J. C. HALL, Pontiac, Mich. TILLMAN & TRAINER, Williamsport, Pa. E. P. MINER, New Haven; W. A. WOLCOTT, Lakeville, Conn. W. N. WHITE, Athens, Ga. J. H. MADDOX, Lexington, Va. W. N. TILLINGHAST, Fayetteville, N. C. H. J. HOWLAND, Worcester, Mass. J. W. MARBLE, Sunderland Vt.

For Wholesale Price List, with full directions for putting up, &c., address proprietor, or see RURAL, March 23d.

T. G. YEOMANS, Walworth, Wayne Co., N. Y.

The Genesee Valley Horticultural Society at its June Exhibition, held in Rochester on the 24th ult., awarded its highest testimonial—a Diploma—to YEOMANS' FRUIT BOTTLE.

A forerunner of the modern fruit jar. At the time this picture and description appeared in Rural New Yorker, 1859, comparatively little preserving was done, and where it was necessary to seal a container, sealing wax was used.

much too early, to gather and put them up for winter use."

Like Washington, Thomas Jefferson was an enthusiastic horticulturist, continuing his interest into advanced age. The great contribution to horticulture of this man of many interests was the organization of the Agricultural Society of Albemarle. Jefferson, with his associate, Joseph C. Cabell of Nelson County, invited thirty congenial and interested agriculturists to Charlottesville, May 5, 1817, "to organize a society for the promotion of the interests of agriculture and rural economy." Dr. S. W. Fletcher, Dean of the Pennsylvania College of Agriculture, says of this meeting: "No more brilliant gathering of men has ever assembled in the name of agriculture. It included two Presidents of the United States, two Governors of Virginia, a United States Senator, an Ambassador to the Court of St. James, a Justice of the Supreme Court of the United States, a President of the University of Virginia, and several other distinguished statesmen, lawyers and planters. The first president of the Society was James Madison, later President of the United States. Jefferson drew up the 'Objects for the Attention and Enquiry of the Society.' "

The achievements of this society meant much to the early horticulture of Virginia and the nation. The year the Society was organized, it sponsored a nursery at Charlottesville; Reuben Maury was appointed to supervise it.

The Society was a pioneer in the encouragement of agricultural education. When it was five years old, it adopted a resolution favoring the "establishment of a Professorship of Agriculture in one of the

principal seminaries in the State. The aim: That practice and learning might meet, in an agricultural school to be developed as part of the broader life of the University." This professorship was established in the University of Virginia, continuing creditably until 1887.

The fairs of the Society featured agricultural and horticultural achievement for a quarter of a century.

Shortly after the Battle of Trenton, during the Revolution, Mr. Campfield relates, captured Hessian soldiers were sent down to Apple Pie Ridge, Frederick county, Virginia. They took with them grafts of a tree known as "Smith's cider variety." This met with local favor, and additional plantings were made. Mr. Campfield states that some of these old trees, planted by the Hessian soldiers, still stand on land then owned by William Lupton, and still retained by his heirs.

Billy Miller of Gerardstown, Berkeley county, Virginia, shifted from grapes to apples because his wife "put her foot down on bringing up the family in a wine-scented atmosphere." The seeds from apples crushed in Miller's hand-power cider mill sprang up into saplings on the sunny hillside near the hog pen. Miller decided that he would start a nursery. He knew nothing about grafting or budding, and any such knowledge was lacking for miles round about, but through correspondence he accumulated knowledge. During the Civil War his nursery was trampled over by both Union and Confederate soldiers, and demand for his stock was of course paralyzed. But by 1870, the Billy Miller market had grown to such dimensions that a New York city buyer paid him \$6,000 on the barrel-head for his crop. This sent a flurry of excitement throughout Virginia, Maryland and nearby Pennsylvania, and the Billy Miller orchard was a Mecca to which would-be orchardists made pilgrimages.

Billy Miller's sons, eight of them, were kept busy from the time they could safely handle a team of horses. They hauled two-horse loads of apples over treacherous roads to Martinsburg, W. Va., eight miles away, and peddled them from door to door. They were frequently set upon by gangs of town boys who, after knock-down fights, would raid their wagons and sometimes take the entire load.

The sons of Billy Miller scattered. Two entered the ministry, but six clung to apple production. Three migrated to Hampshire and Morgan counties, where the rough virgin soil could be purchased for a couple of dollars an acre, and developed horticultural enterprises. Such men were typical of the early commercial growers of Virginia and West Virginia.

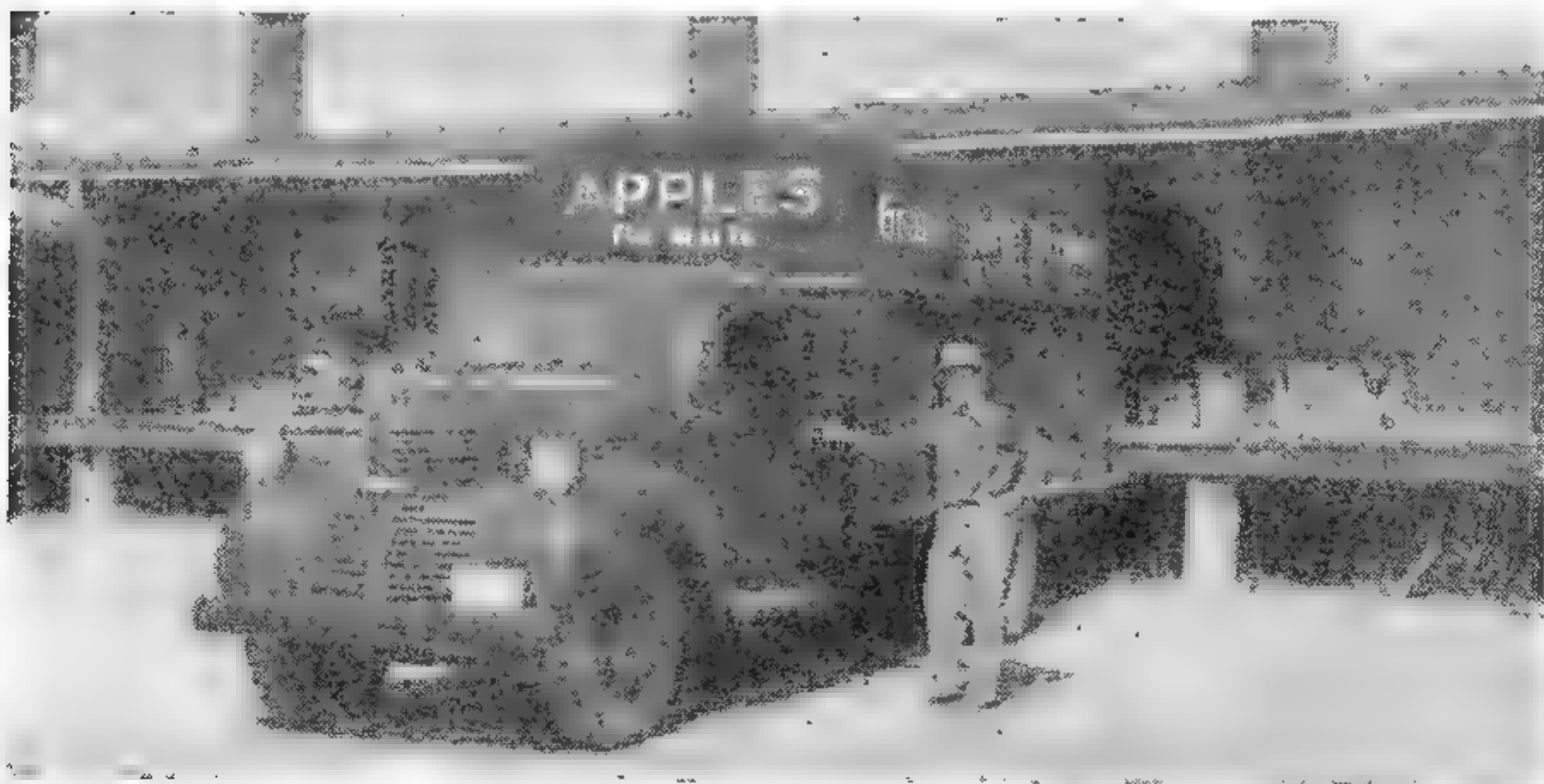
Colonel William Byrd, writing in 1729, said: "It is an observation which rarely fails of being true, both in Virginia and the Carolinas, that those who take care to plant good orchards are, in their general character, industrious people." His descendant, Senator Harry F.

Byrd, of Winchester, Va., and Washington, D. C., who is one of the world's largest apple growers, writes:

"My own activities in the apple business began in 1906 when I was still in my teens. I then leased a small orchard, and the following year purchased one. My holdings have gradually increased until today my brother, Thomas B. Byrd, and I operate between five and six thousand acres, about half of which I personally own.

"The apple business has undergone many changes in recent years. In my early activities spraying was done from horsedrawn wagons, on which barrels were mounted, and the pumping was done by hand. The fruit was packed directly into barrels in the orchard as it came from the trees, being sorted by hand from tables or from small portable sizing machines. Today high-powered efficient sprayers are employed, with tanks holding 500 gallons or more conveyed by trucks or tractors. We have elaborate central packing houses with machinery for washing, polishing and waxing the fruit, and sizing into variations of an eighth of an inch or less. Since the loss of the export business, due to the war, apples are now packed principally in baskets and boxes, with boxes gaining rapidly in favor. I now pack a large part of my fruit in boxes with the apples waxed and individually wrapped, and a definite count of apples per package.

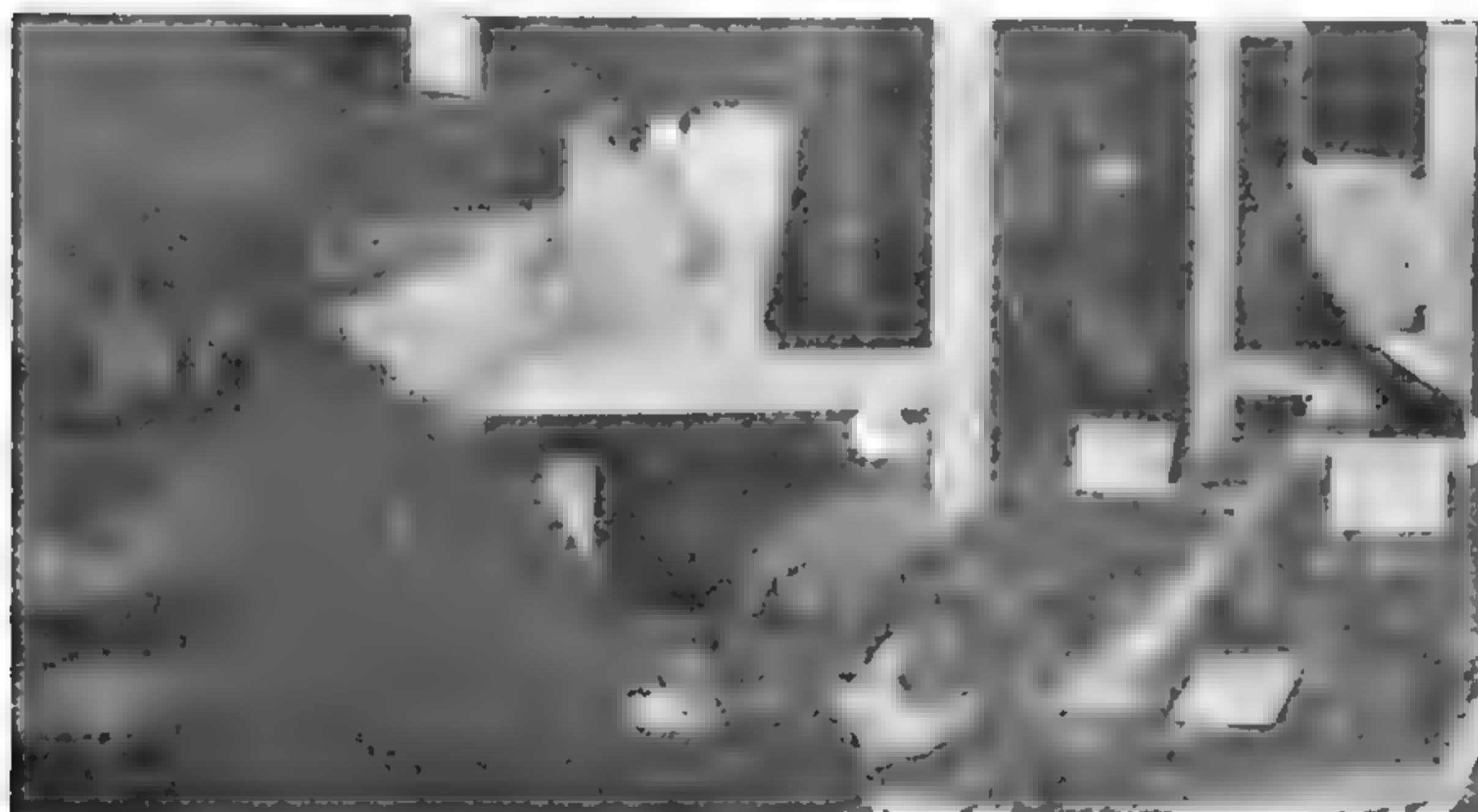
"The most striking improvement of recent years is the introduction of color sports in apple plantings. The consumer has always insisted that red apples be red. Unfortunately, in the East climatic conditions and rainfall have not always permitted the color desired. The discovery of the color sports on established varieties, and the production of these



"Apples delivered at the store" is a service feature of Grand River Orchards, Ashtabula county, Ohio. Salesmen drivers cover a wide territory in northeastern Ohio, replenishing the stocks of groceries and restaurants. The sales system grew as the orchard developed.

sports by the nurseries, now enable us to produce red apples which are practically entirely red throughout the tree. About seven years ago I planted a new orchard of a thousand acres entirely of the red sports of Stayman Winesaps, Winesaps, Delicious, Rome Beauties, Yorking and other varieties. This orchard is now beginning to produce, and the apples are well up to expectations, with color far superior to the apples of the same varieties we have heretofore grown.

"Apple growing has its ups and downs like most other endeavors. We have had many years in which it has been impossible or difficult to operate at a profit, and then occasionally we have a very profitable year. The apple grower faces not only the possibility of low prices, but, like other farmers, he is dependent upon the weather and has a hard and continuous fight against pests and diseases. The loss of his crop from freezing and from hail is his worst hazard. But regardless of its perils, the apple business is a fascinating one, and I feel confident that it has a bright future. As long as Americans continue to enjoy the tang and bite of a crisp, juicy apple, and of course their old-fashioned apple pie, the market for apples is secure."



CHAPTER VIII

Pennsylvania and Adjoining States

Benjamin Franklin encouraged the exportation of apples, and laid a foundation for the demand for fruit produced in Pennsylvania and adjoining areas. He distributed Newtown Pippins at the British Court in February 1759. Collison, the English naturalist, wrote appreciatively to John Bartram in America: "Our friend Benjamin had a fine parcel of apples come over, which I shared." Collison ordered some grafts from Bartram. Fourteen years later, the son of Collison wrote to Bartram: "Your American apples have been an admirable substitute this season, many of our merchants having imported great quantities of them."

One can picture Franklin in his middle years, in ruffles and knee breeches, a basket of apples on his arm, passing choice specimens to high officials in London. One can also visualize how the recipients enjoyed the splendid apples.

Pennsylvanians have shown a consistent interest in apples from the earliest days of the colony. The recently restored grounds at Pennsbury, the country seat of William Penn, include apple trees. From the smallest parcel of land to the largest holdings in the colony, the orchard was a definite part of the scheme of home development.

Benjamin Franklin, the Philadelphia printer and publisher, contributed to the development of the apple industry when in 1744 he personally encouraged the founding of "The Society for the Promotion of Useful Knowledge," which afterward became the American Philosophical Society. In the days of Franklin, the Society was deeply concerned with agriculture. Its members, regardless of profession, were land owners. At heart they were all farmers and horticulturists, so agricultural subjects were discussed at their meetings. The papers presented are splendid treatises on the farming methods of early America.

Franklin proposed an "Academy of Science," to be sponsored by the American Philosophical Society. He urged an experimental garden, in which practices of propagation and cultivation of fruits should be demonstrated. He suggested that members of the organization should make excursions to the estates of the best farmers round about Philadelphia for study and observation. Franklin exclaimed: "Why cannot the gentlemen of Philadelphia and its neighborhood, who are lovers of agriculture, form themselves into a society for the encouragement of this noble art?" Franklin lived to see the founding of the "Philadelphia Society for the Promotion of Agriculture," in 1785. Dr. S. W. Fletcher, Dean of the College of Agriculture, Penn State, writes: "This society had a notable career for over a century. From it sprang the first horti-

cultural society, organized in 1827, the Pennsylvania Horticultural Society. The original organization also provided the initiative for the later formation of the Pennsylvania State Agricultural Society, the County Agricultural Societies, and finally the State Board of Agriculture. We are indebted to Benjamin Franklin, more than to any other man, for initiating organized education and research in agriculture and horticulture."

Franklin had as a co-temporary and friend the famous botanist, John Bartram, 1699-1777, a thrifty, well-to-do Pennsylvania Quaker—proprietor of the Bartram Botanic Garden, a trading post for plants, flowers, fruit and nut trees, and ornamentals, for the colonies and European countries. Bartram contributed the first variety of fruit to originate in America, the Petre pear. He planted the seed in 1735. His successful experiments with hybridization mark him as a pioneer in the propagation of better varieties.

There was little incentive for the pioneer to develop varieties, and better practices in the production of apples and other fruits, when markets were almost non-existent. Under the wise William Penn, Philadelphia became a metropolis, with a population of 5000 people, in 1693. William Penn established market-places, and was insistent on quality. Pennsylvania products shipped to Europe at that time were bought with confidence, due to the reputation earned under the Great Proprietor. With the growth of Philadelphia, and the spread of highways to pioneer settlements, keener interest developed in agriculture and horticulture two and a half centuries ago.

Dr. M. A. Blake, chief in horticulture at the Agricultural Experiment Station, New Brunswick, New Jersey, informs the writer that three centuries ago "Swedes settled in New Jersey at Raccoon, now Swedesboro, south of Philadelphia and Camden. The Quakers first settled in the vicinity of Philadelphia, later across the river in Burlington and Camden counties.

"The highway between Philadelphia and Trenton and New Brunswick was heavily traveled in early colonial times. The travelers passed between Trenton and New Brunswick by stage, then took a boat to New York. The noted naturalist Peter Kalm, traveling this route, wrote interestingly in 1748: 'In the morning I set out from Philadelphia on a little journey to New York to see the country, and inquire into the safest road to take going into Canada. That part where we traveled, on the west bank of the Delaware, was pretty well inhabited on both sides of the road by Englishmen, Germans and other Europeans. Near almost every farm was a great orchard, with peach and apple trees, some of which were yet loaded with fruit.'"

Dr. Blake continues: "Kalm crossed the Delaware at Trenton, and from Trenton to Princeton he found the country thickly settled and

One of the earliest "portable" sprayers offered to the grower, as advertised in 1878 in American Agriculturist. Nowadays, with gasoline doing the heavy work, portability is less of a problem—even when using a power sprayer with a 400-gallon tank.



Is double-acting, throws a continuous stream 40 ft. Useful for sprinkling lawns and roads, washing windows, extinguishing fires, throwing liquid poison to destroy worms, on plants, fruit trees, shrubbery, etc. Very simple, durable, and easy to work. Price, \$5.00. Manufactured only by The American Machine Co., Nos. 1916-1924 N. 4th St., Phila., and 128 Chambers St., New York; L. M. Rumsey & Co., St. Louis, Western Agent.

full of orchards. He wrote: 'During the greater part of the day we had extensive corn fields on both sides of the road . . . Near almost every farm was a spacious orchard full of peach and apple trees, and in some of them the fruit had fallen from the trees in such quantities as to cover nearly the whole surface. Part of it they left to rot because they could not take it all in and consume it. Wherever we passed by, we were always welcome to go into the fine orchards and gather our hats and pockets full of the choicest fruit, without the possessors so much as looking after it.'

"In other words," Dr. Blake concludes, "One of the most flourishing and successful agricultural areas in early colonial times developed from Delaware north to New York. The fact that large numbers of people settled about Philadelphia and New York, and that the land and climate were especially favorable, brought about rapid progress in the production of crops. Transportation of any considerable quantity of food products was by water, so that the arable land along the Delaware River was especially adapted to the needs of such a community as Philadelphia."

William Cox of Burlington County, New Jersey, wrote the first American book on Pomology, published in 1817. This book reviewed the experiences of the author covering a period of nearly 20 years. He demonstrated that tillage was essential to good growth of apple trees,

and recommended that "40 feet is the most eligible distance for a farm orchard."

Daniel Smith, a nurseryman at Burlington, N. J., issued a catalog in 1806 in which he listed 399 varieties of tree fruits. Of this number 152 were varieties of apples.

The nurserymen who pioneered grafted trees as early as 1800 were: The Prince Nurseries of Flushing, Long Island; the nursery of David Landreth & Son, seedsmen, Philadelphia, America's first seed house, established 1784; William Coxe of Burlington—and of course the Smith nursery, which undoubtedly was important due to the wide range of varieties offered.

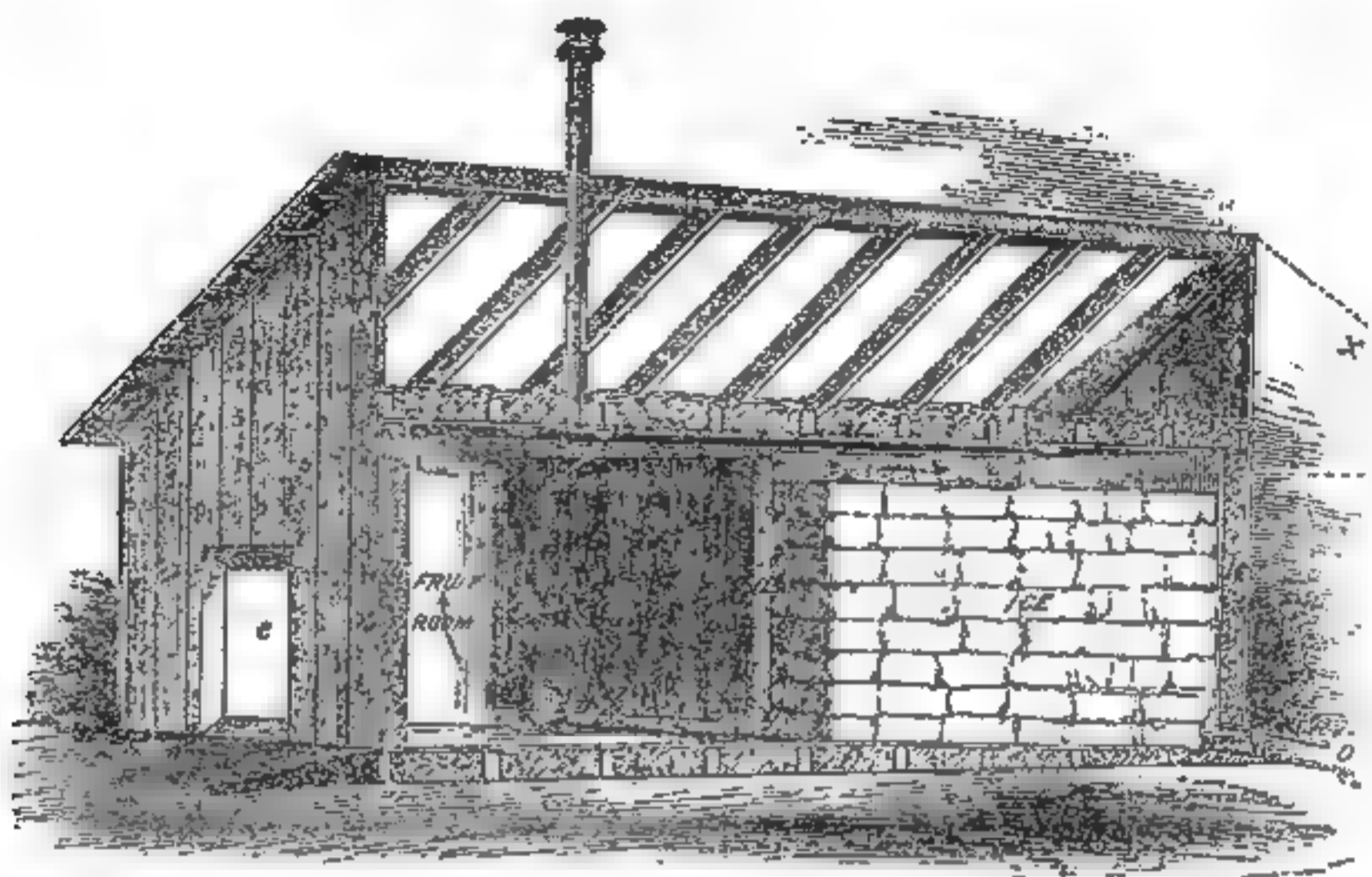
Coxe in 1817 listed the following old time favorites: Sweet Bough, Maiden Blush, Fall Pippin, Dominie, Gilliflower, Rambo, Pound, Yellow Bellflower, King, Lady Apple, Esopus Spitzenburg, White Winter Pearmain, Rhode Island Greening, Seek-No-Further, Yellow Newtown, Winesap, Early Harvest and Tallman Sweet.

Fruit growing in Pennsylvania evolved from the family-sized farm orchard to a competitive type of orcharding in which the owners, gentlemen farmers, tried to outdo one another in the number of varieties grown. A century ago many tried to procure every kind of apple tree listed in the nursery catalogs, or by Downing. It was the pride of the proprietor of an orchard to take his friends through it, indicating each variety, and naming the price he paid for even a tree or two. If the trees were in bearing and the fruit ripening, the orchardist was invariably insistent on his guests tasting of every variety of apple, hard or mellow, sweet or sour.

With the development of canals, and the westward construction of railroads, from 1835 onward, a demand for "apples for the millions" was heard. This ushered in the golden age for the fruit tree agent, in the period before and after the Civil War. Expectations rose, but were dashed on the rocks of depression in the early '70s, and again in the '90s when the orchardist, the farmer and the consuming public all suffered alike from financial catastrophe and a paralysis of buying power. This was aggravated by overplanting, lack of proper grading, and poor



Up until the late years of the past century, it was the usual thing for the neighborhood cider mill to have its press built locally by one of the community's handy men. The first screws for cider presses were wooden ones, giving way to more dependable iron ones. American Agriculturist, 1870.



SCHOOLEY'S PATENT PRESERVATORY.

One of the early storage plants, with a compartment for ice, and a cold room for fruit. Sawdust was used as insulating material, and the design provided for continuous air circulation. Rural New Yorker, 1858.

marketing methods. By the turn of the century, disease had eliminated many of the old orchards.

Once again, after World War I, the apple grower suffered grievously from inflated land values, over-optimism, and decadent markets. As long as the boom period of that war lasted, it was profitable to pay the high prices for orchards, as the crop hanging on the trees would nearly repay the money invested.

The orchardist who had not only vision and courage, but also sound practices in the production and sale of fruit, was able to weather the depressions. For men of this type, long-range prospects are good in spite of immediate reverses.

In the early years of the present century, the apple buyer dominated the field. Not only in Pennsylvania, but in every apple producing section of the country, he purchased an entire crop for "spot cash," and picked and packed the apples with local help supervised by key men in his employ.

The apple buyer's reign of speculation ended in World War I time. The development of producer-owned or controlled storage plants, the dissemination of accurate information regarding crop prospects, and the cooperative marketing of fruit under labels and packaged, all contributed to the elimination of the apple speculator.

Dr. Fletcher summarizes the evolution in cultural practices which have lifted apple production from a neglected farm side-line to a highly technical industry—an evolution which has occurred within the memory of men who are active today. Modern practices include scientific soil management, fertilization, pruning and training, spraying, concentra-

tion on well adapted popular varieties, coupled with an open mind for new and better varieties. And finally, intelligent and systematic marketing.



While grading and packing have acquired an assembly line routine, the work still requires judgment and accurate knowledge of grades. Many methods of the west have moved east. This photo shows a typical cooperative plant, Keystone Cooperative of North East, Pa.; apple grading, packing and storage.

CHAPTER IX

The Apple Migrates Westward

John Josselyn, an English traveler who journeyed in New England between 1638 and 1671, spoke of flourishing orchards of apple, pear, quince, cherry and plum. He was "filled with wonderment" at the vast amounts of "syder" stored by the people of the time. He speaks of a town official who boasted that he had "upward of 500 hogsheads of syder in the cellar." He wrote that one could purchase "in the tap houses in Boston an ale-quart of syder, sweetened and spiced, for a groat." A groat was the equivalent of 8 cents.

Paul Dudley, Chief Justice of Massachusetts, residing at Roxbury, wrote in 1726: "Our people have run so much to orchards that in our village near Boston, consisting of about 40 families, they have made near 3000 barrels of cider." Another town of 200 families boasted 10,000 barrels of cider. Commenting on the productive capacity of trees, he writes: "Some of our apple trees have made near five and six barrels of cider." He writes: "A good apple tree will measure from six to seven feet in girth. I have seen a fine Pearmain at a foot from the ground measure ten feet four inches around. This tree in one year has borne 38 bushels by measure, of as fine Pearmain as ever I saw in England. A Kentish Pippin at three feet from the ground was seven feet in girth. The largest tree that I could find was ten feet six inches around, but this was no graft."

A quarter of a century after the arrival of the Pilgrims at Plymouth, orchards were bearing fruit, and then as today the boys were raiding orchards for this appetizing fruit. A law was passed in 1646 in Massachusetts colony providing that any one caught stealing apples should reimburse the owner of the orchard, in amount three times the value of apples stolen. Rhode Island enacted a similar law during the Revolutionary War period.

How far back apple culture dates in New England is problematical. Judge Florence Allen of the United States Court of Appeals, Cincinnati, Ohio, says that her ancestors who came over in the Mayflower brought apple seeds with them.

Perhaps even before the Plymouth Settlement, 1620, unknown travelers traded apples with the Indians, or left seeds on the New England shores, to introduce the apple to those parts. Rev. Elliott, known as "The Apostle to the Indians," was given an acre of land and an "Orange Sweeting" tree early in the days of the Massachusetts Bay colony. This acre of land was located on the Peninsula of Boston, and fruit from this tree was exhibited two centuries later, in 1833,

before the Massachusetts Horticultural Society, according to Dr. A. E. Stene of the Rhode Island Experiment Station.

Governor Endicott of Massachusetts, in the early days of the colony, dealt in fruit trees to some extent, as is reflected in old records. In 1648 he traded 500 three-year-old apple trees for 250 acres of land. This was a fair deal considering the cheapness of land, and the difficulty of procuring good fruit tree stock.

William Blaxton who lived near Providence, Rhode Island, one of the early settlers, was a welcome visitor when he came to town with a basket of apples on his arm. He distributed Yellow Sweeting apples of which he is credited with having been the originator. A monument was erected at Lonsdale, R. I., a few years ago, commemorating his residence in Rhode Island, 1635-1675, and his contribution to pomology. According to Professor Stene, Blaxton, or Blackstone, was "the first settler of Boston," and planted an orchard at what is now the junction of Beacon and Charles streets, before his migration to Rhode Island.

In those days, as today, orchardists suffered not only from marauders, but from insect pests and diseases. Professor Stene says "The codling moth took its toll, and the apple tree borers were well known long before even the oldest members of the present generation of growers began to study insect problems. Then as now leaf-eating insects had enormous appetites. John Hull, in 1661, wrote that 'The canker worm has for four years devoured most of the apples in Boston, so that the apple trees look in June as if it was November.' This leads to the conjecture that the seriousness of present difficulties is due not entirely to an increase in the prevalence and aggressiveness of pests, but also to the fact that our ideals of fruit perfection have greatly advanced, and that fruit which was considered very good two or three generations ago is not now regarded as meeting the requirements for a first class product."

The Moore Nursery at Providence, Rhode Island, advertised in 1841 that it had nearly one-half million trees, among them 102 varieties of apples, and 20 of these could be procured on dwarf roots. The famous Prince Nursery of Long Island listed 116 varieties of apples about the same time.

Dr. S. P. Hollister, professor of Horticulture, University of Connecticut, Storrs, Conn., informs the writer that Lady Fenwick planted imported trees at Saybrook in 1639. In 1641 there was a nursery at Saybrook, and in 1648 a Mr. Wilcott of Windsor, Conn., sold trees and carried on a nursery business. His trees were seedlings upon which he grafted definite varieties. His old account book contains entries revealing the quantity of apples produced, most of which were sold as cider. In 1649 his crop was 91 bushels; 1650, 212; 1651, 496; 1652, 452; 1653, 1127; 1654, 1288.

Dr. Hollister says that T. S. Gold, West Cornwall, Conn., was the



The famous "grand-daddy" of many western trees, this sturdy old apple tree, on the Spring Hill Road, Mansfield, Conn., was 150 years old at the time this picture was taken. Seeds and grafts from it were carried westward by numerous Connecticut people seeking new homes. (Courtesy Dr. S. P. Hollister, Storrs, Conn.)

inspiring influence for fruit growing in Connecticut from 1850-1870. For many years secretary of the State Board of Agriculture, he was also founder of Connecticut Pomological Society. In giving a talk at the annual meeting of that society in 1898, he stated that the grafted varieties of apples common in Connecticut before 1835 were Pearmain and Seek-No-Further, which are still with us. Then the Rhode Island Greening and Spitzenburg took the lead, the Baldwin coming later. The Sweet Bough was one of the first grafted varieties. Mr. Gold re-

called that apples were plentiful in those early days, up to 1835, an off year in which there were no apples throughout the state, due to a hard freeze in May.

In every orchard of a hundred trees there were all colors and flavors, some early, some late. Grafting was early practiced, a bunch of clay wrapped with swingling tow being used to cover the stock. The first use of grafting wax was in the early 1830's. Dr. Hollister adds: "Edwin Hoyt, nurseryman and fruit grower, New Canaan, Conn., planted an apple orchard soon after the Civil War using seed from a vigorous apple tree. J. H. Hale, South Glastonbury, Conn., of peach fame, planted a large acreage of apples. His influence on orcharding was especially strong from 1890 to 1910. Others having great influence on fruit growing in the state during the past half century are J. H. Merriman, J. N. Barnes, C. E. Lyman, N. S. Platt, L. C. Root and Professor A. G. Gulley.

"In the early days, cider was such a common drink that haying without a jug of hard cider was the exception. People were temperate, in popular opinion, as long as they did not drink whiskey or other 'strong drink.' If one refrained from hard cider he was certainly a teetotaler."

The migration of the Ohio Land Company's stockholders from New England to Marietta, Ohio, in 1788, constitutes one of the interesting chapters in agricultural and political history. The Ohio Company was made up of many officers and enlisted men of the Revolutionary War. They had visions of an expanding nation, and liked the possibilities of the Ohio country.

A chance resolution of one of the company at a picnic gathering in the east, in 1787, stimulated the migration. Someone in the audience moved "That we adjourn to meet next year, on the Company's lands on the Ohio." Without weighing the difficulties involved, the motion was passed with enthusiasm. The next year, 1788, the company arrived at historic Marietta, settling at both Marietta and Belpre. C. W. Ellenwood, Associate Horticulturist of the Ohio Agricultural Experiment Station, Wooster, Ohio, is a descendant of one of the pioneers of this migration. He says that the Putnam nursery of Marietta, founded by General Rufus Putnam of the Revolution, supplied much of the nursery stock in southern Ohio for three quarters of a century. The Roxbury Russett was one of the prominent varieties of Ohio, and many of these trees are to be found in old farm orchards.

Dr. Frank H. Beach, Extension Horticulturist, College of Agriculture, Ohio State University, tells that the largest early commercial plantings of apples in Ohio were adjacent to the Ohio river, which was the most important artery of commerce in a wide section of the interior. The largest plantings were in Lawrence County; there were a number of

others up and down the river, in Ohio and the adjoining states. The markets were chiefly in cities along the Ohio and lower Mississippi River. Many flat-boats were loaded with apples and floated to market as far south as New Orleans. As the state was settled and developed agriculturally, the apple industry was extended quite generally over the state on favorable sites and soils, until commercial apple growing has become important in about 50 of Ohio's 88 counties.

Ohio ranks about 6th among the states of the union in commercial apple production. Varieties listed in order of importance are: Rome Beauty, Stayman, Baldwin, Jonathan, Grimes, Delicious, Golden Delicious, McIntosh, Cortland, Wealthy, Duchess and Transparent. Many other varieties are grown less extensively, although there is a trend toward fewer varieties, those in demand by the larger retail stores. Apples are grown to some extent on more than 100,000 farms in the state, although commercial plantings are found on only about 2,000 farms.

Joncaire, a famous French merchant who located at Detroit in 1777 to recoup his fortune, and to pay debts incurred from misfortunes of the French and Indian war, built his log trading post at a point not far from some apple trees then of considerable size. Before the French and Indian War, Joncaire was the devout servant of the King of France in America. He was the distinguished French Indian agent, scout, trader and officer who received George Washington with "complaisance" at Fort Venango, now Franklin, Pa., in 1753. Joncaire was even then horticulturally minded, having influenced the planting of a vineyard at Fort Venango.

Systematic plantings in the vicinity of Detroit by the French date back to 1796, as shown by historical records. The varieties, Fameuse, Pomme Grise and Red and White Colville, came from France via Montreal, and then progressed westward with settlement of the country.

The Indians scattered the seed throughout Michigan and the northwest. C. E. Russell, Extension Associate Professor of Horticulture,

*Salesroom, storage and packing plant,
owned by Herman Cole, Hillsdale County,
Michigan. Plenty of light for grading;
50,000 bu. storage capacity.*



Michigan State College, East Lansing, Mich., says that seedling apple orchards planted by Indians were found in Orchard Lake, near Pontiac. Another was found near the present site of Saginaw. In northern Michigan, Indian orchards were found on what came to be known as the George Parmelee Farm on Old Mission, Grand Traverse county, and on the Donsman Orchard site near Mackinaw.

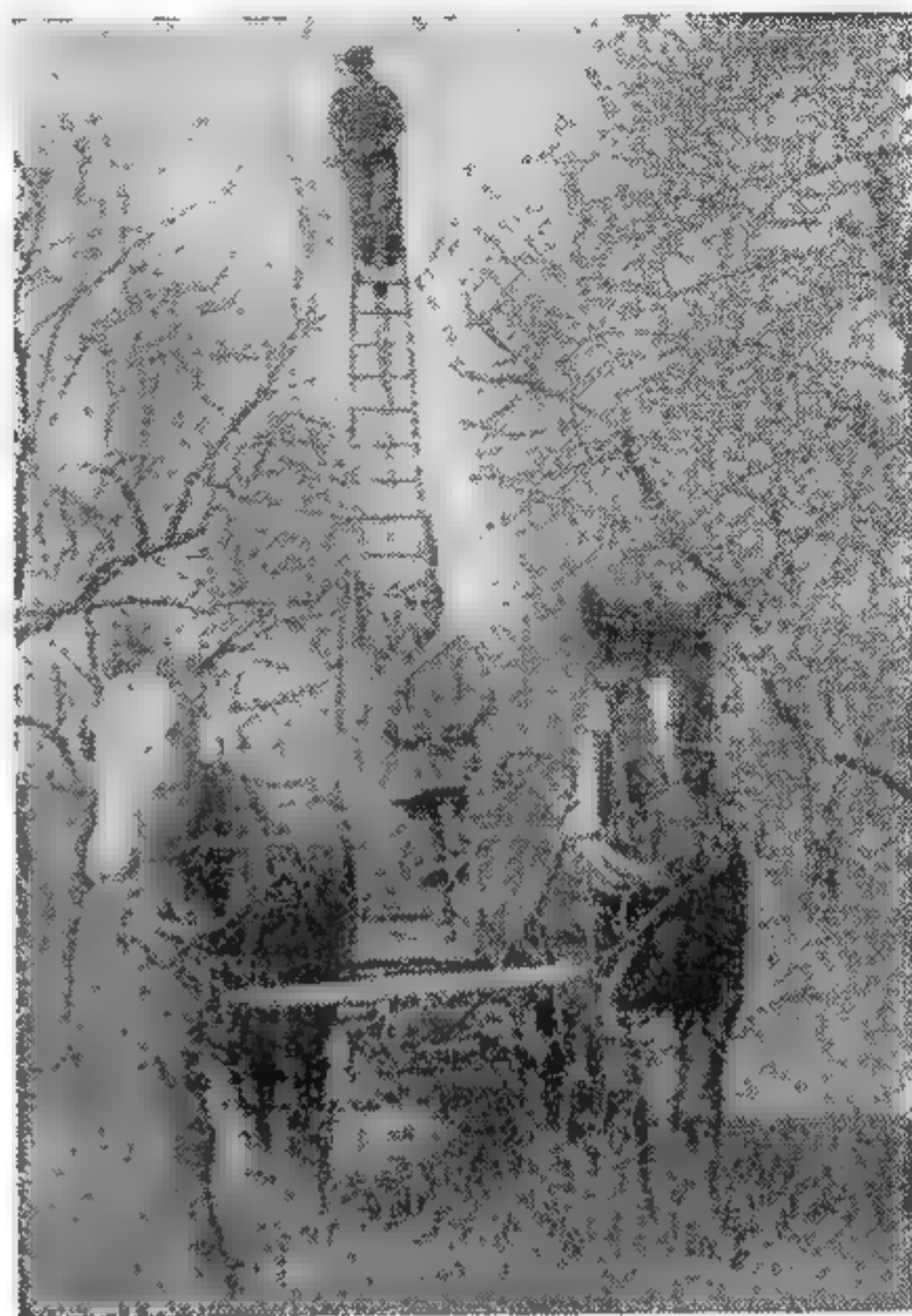
Professor Russell says that the first large importation, consisting of 2,000 apple trees, was made by Gov. William Woodbridge in 1825. These were purchased from Grant Thoburn of New York and were set on Governor Woodbridge's farm located west of and adjacent to Detroit. About 1833-34 the Sprague Nursery near Pontiac was in existence and others were being started, one at Detroit by William L. Woodbridge, son of Governor Woodbridge, and another by the Lay Brothers at Ypsilanti. W. B. Steere and others in Lenawee county imported trees and set several orchards during this early immigration period. About 1834 the first budded apple trees were planted in Berrien county, though seedling orchards existed earlier. Systematic orchard culture in Michigan began about 1850. By 1865 there were nearly 70,000 apple trees on both sides of the St. Joseph River.

Wisconsin, famed for butter, cheese, and milk, has not lacked orchardists. The first settlers in the pre-Civil War period located in the southwestern part of the state, attracted by the lead and zinc mines. They brought apple tree stock with them, and also bought from the traveling fruit tree agents. James G. Moore, chairman of the Department of Horticulture, College of Agriculture, Madison, Wisc., states that the period immediately following the Civil War was one in which the Wisconsin State Horticultural Society was active particularly in the interests of pomology. He says: "Several varieties, the Wolf River, Patten Greening and Northwestern Greening, were originated in the state." Other varieties of local importance were developed.

Missouri is famed for the name Stark, and their Red and Golden Delicious. The history of the apple in Missouri goes back a quarter of a century before the Civil War. Ely Jacks of Kentucky migrated to Howard County, Missouri, in 1838, and from Howard County to Platte County the following year, planting a 10-acre orchard which was then considered the largest west of the Mississippi. He brought apple seeds from Kentucky, also trees and scions. An apple tree agent sold Jacks several "New York Pippin" trees which later became known as Ben Davis, according to the records of the Missouri Horticultural Society. When his seedling stock reached size, it was culled and grafted to Ben Davis. W. G. Gano came into possession of the orchard, and a tree was noted bearing fruit with a distinctly redder color. This was considered a distinct variety, and the orchard owner's name applied.

The Black Ben Davis originated on a farm near Lincoln, Ark., and

Many old orchards in southern Michigan were restored to bearing by modern scientific care. This program was inaugurated by W. S. Pullen, of Hillsdale, in 1910, and by S. A. Green two or three years later. Famous old orchards of southern Michigan were brought back to fruitfulness by these and other men who leased orchards, and sprayed, pruned and fertilized, systematically.



derived its name not from the color of the apple, a deep red, but from the name of the owner of the farm. A committee of the Missouri Horticultural Society brought in the verdict that the Gano and the Ben Davis from the Black farm, or "Black Ben Davis," were one and the same variety. The discussion, and investigation of the origin of the two apples, shows the keen interest in apples two-thirds of a century ago, of members of the Missouri Horticultural Society.

The first orchard on the eastern slope of Colorado was planted in the Arkansas Valley near Canon City in 1861. This was only a home orchard; it was flooded out in 1863. The first commercial orchard in the area was planted by Jesse Frazier in 1867 near Florence. He was also Colorado's first nurseryman. The second commercial orchard in this area was planted near Canon City by Capt. B. F. Rockefeller, 1869. L. R. Bryant, Associate Horticulturist, Colorado State College, Fort Collins, says that northern Colorado fruit production is largely due to the efforts of two men, one of them James S. McClelland, who planted the first commercial orchard near Fort Collins in 1876. This was gradually increased to 10 acres, and was an inspiration to nearby settlers to take an interest in apple growing. The other pioneer, Charles Pennock, started an orchard and a nursery a few miles northwest of Fort Collins in 1889.

Active western slope development started about 1883 when William E. Pabor planted apple and other trees near the present town of Fruita.

Other early orchards were planted by Rose & Miller, A. M. Olds and Robert A. Orr. The development on the north fork of the Gunnison River in Delta County was started when S. A. Wade set the first orchard. Commercial orchard development in Colorado really began with the Grand Valley boom in 1895, and the varieties included every apple grown in the temperate zone.

The Mormon pioneers introduced fruits from various sections of the east, from New York state westward through Ohio and Illinois, and to the intermountain area. Their great leader Brigham Young exhorted the pioneers to bring all kinds of seeds and plants, to establish gardens and orchards about their new homes. The first contingent arrived in 1847, and due to their foresight, pomology and horticulture were established over a wide area, at an early date.

A. W. Lund, Assistant Church Historian of the Church of Jesus Christ of the Latter Day Saints, Salt Lake City, Utah, gives the writer the following excerpt from the remarks of Elder Wilford Woodruff, Sept. 13, 1856: He said: "I have an orchard in which are 44 apple trees six years old next spring; 41 peach trees three years old; one apricot tree and 100 currant stocks of various kinds which will be old enough to commence bearing next season. I plant my apple trees 22 feet apart each way, with a peach tree between each."

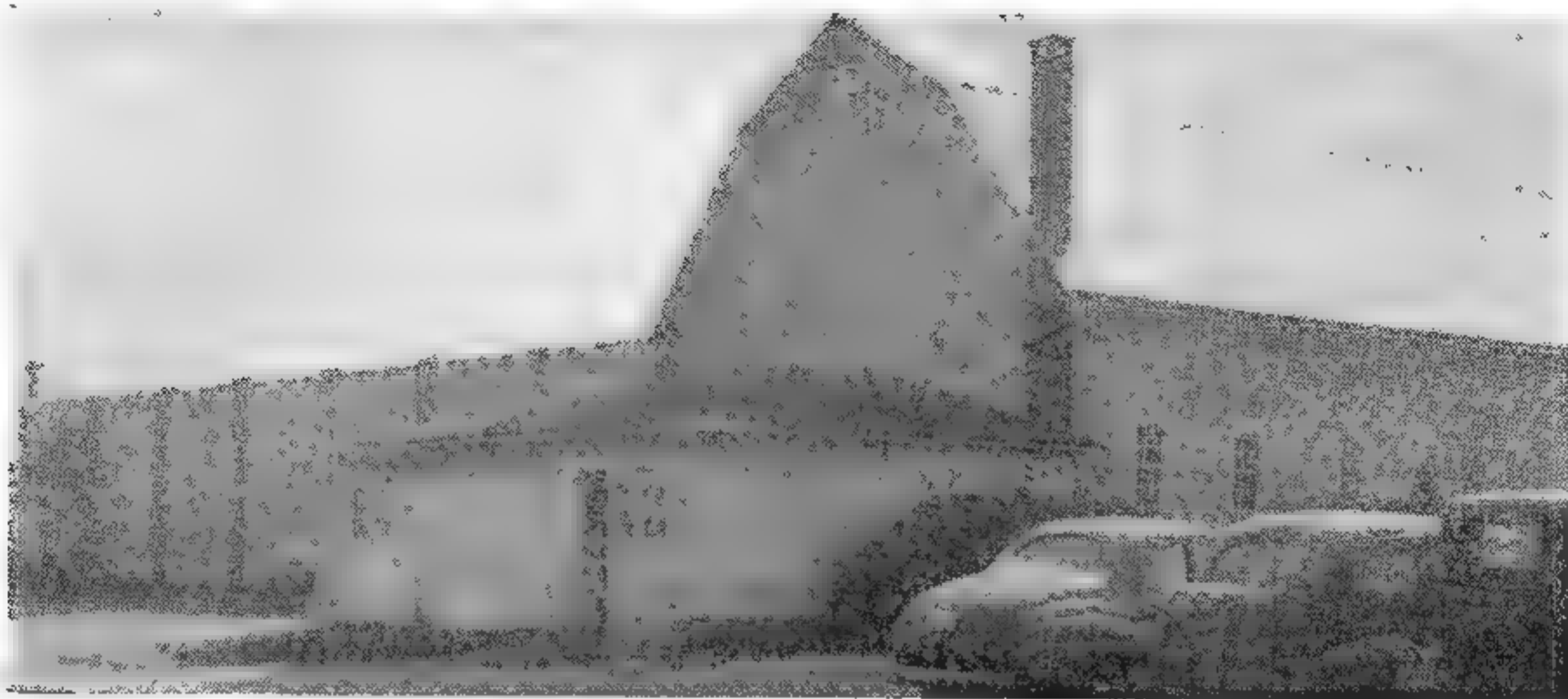
Such were the efforts of those who participated in this historic migration to cause "the desert to blossom as a rose."

In those early days the lure of gold obscured the vision of the '49ers to California. Apples and other fruits, they believed, could be bought with gold. In the wild scramble there was little attempt to establish homes, and hardly any systematic agriculture. However the founders of the California missions took an interest in fruit growing, and the cultivation of semi-tropical fruits.

The influence of the pioneers in the inter-mountain region of the west spread from the early Utah settlements. A well-ordered social, agricultural and religious society is a firm foundation for any agricultural and horticultural endeavor.

To Canada, when the French and English came to establish new homes, they brought apple varieties from England and Continental Europe. M. B. Davis and R. L. Wheeler, in the Canadian Geographical Journal, give credit to Pierre Martin for having set out the earliest known orchard in Nova Scotia, and probably in all Canada. This was in the Annapolis valley near the town of Annapolis Royal. By the time of the English occupation, in 1760, apple trees could be found throughout the valley, and the settlers were looking to the commercial possibilities in apples.

Credit is due to Canada for the splendid McIntosh. This apple was a chance seedling which was recognized and given opportunity to



Seventy-five thousand bushel storage plant at Grand River Orchards, Geneva, Ohio, established by W. T. Mann, of Niagara County, N. Y., after bringing to bearing three earlier orchard enterprises.

live and bear by John McIntosh, Dundela, near Ottawa, 1796. The original tree still stood at the outbreak of World War I. A monument with appropriate inscription pays tribute to John McIntosh and this superb variety. The McIntosh apples on tens of thousands of farms and commercial orchards throughout United States and Canada are evidence of the wisdom of John McIntosh in recognizing and preserving the seedling.

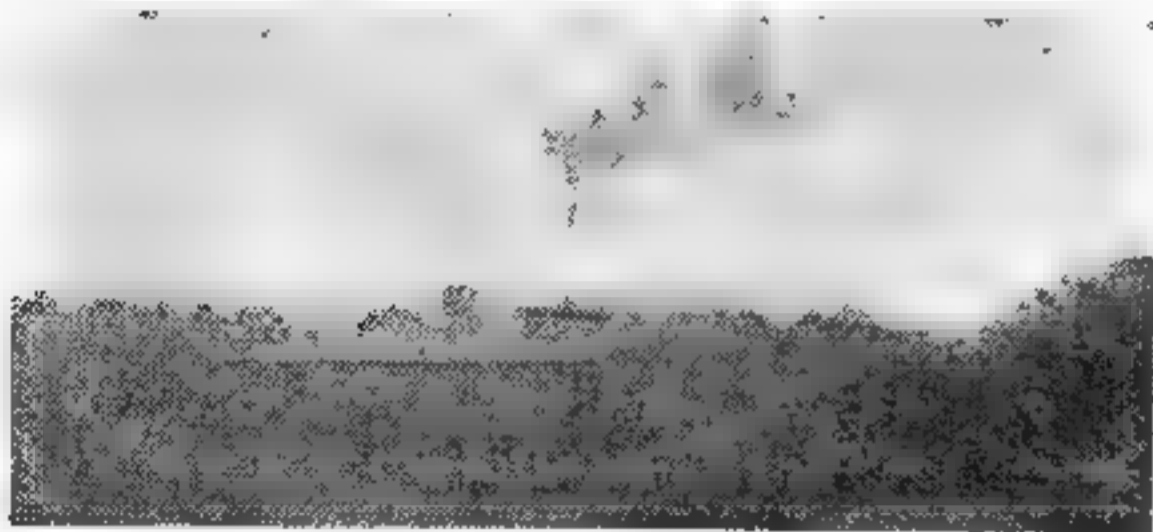
The Fameuse or Snow Apple originated in Quebec, presumably from seed brought to Canada by the early French. Charles R. Prescott introduced the Gravenstein, first from Holstein in Germany to England, and then to Nova Scotia.

The Yellow Bellflower became known in Nova Scotia as the Bishop's Pippin. Bishop Inglis of the Church of England was an enthusiastic gardener and fruit grower, and his interest in this variety popularized it in Nova Scotia. Originally this variety came from United States, through the influence of "American tree peddlers." The Nova Scotia Fruit Growers' Association reported in 1886: "Though the peddlers are a fraud and a deception in many cases, yet on the whole they have been a benefit to the country—they introduced some new and valuable varieties, and incited the farmers to increased activities."

The Crimson Beauty, one of the earliest ripening apples, is a New Brunswick product. As the wave of settlement moved inward, the pioneers of New Brunswick followed the practice of the first settlers of Nova Scotia, and that of other pioneers, in establishing orchards. The Crimson Beauty was originated by Francis Peabody Sharpe, and is widely grown in Canada and the United States.

The first shipment of apples to England from Nova Scotia, and

perhaps from all Canada, was made in 1849. Another large shipment was made in 1861. Twenty years elapsed, and then the marketing of Canadian apples in England assumed growing importance in the decade from 1880-90. At the turn of the century the Canadian apple had migrated across the Continent to the Pacific coast, and had won popularity in all markets.



The processing plant of a 60-acre mid-western orchard, which produces apple butter, apple jelly, and sweet cider.

CHAPTER X

Apple Culture in the Northwest

Strange events, apparently of little consequence, have had a great influence on the spread of the apple.

Miss Nellie B. Pipes, Portland, Oregon, Librarian for the Oregon Historical Society, tells of a dinner party in London, in 1824, attended by Captain Aemilius Simpson of the Hudson Bay Company service: "A young lady sitting next to Captain Simpson saved the seeds of an apple she had eaten, wrapped them in paper, and slipped them into his pocket. When the Captain reached Fort Vancouver, northwest headquarters of the Hudson's Bay Company, he gave the seeds to the Chief Factor, Dr. John McLoughlin, and they were planted. In due time a tree grew, and produced for its first crop one apple. There is a tree still standing in Vancouver that is probably a seedling from the original—some say it is the original tree."

Miss Pipes adds: "There were seedling apple trees in the gardens of the settlers on French Prairie probably in the 1830's, but the first grafted trees in Oregon were brought across the plains from Iowa by Henderson Luelling in his 'Traveling Nursery.' In the spring of 1847, Mr. Luelling planted some yearling grafted apple trees. In the early summer they were lifted, and placed in a specially built wagon for the long trip to Oregon. They were carefully tended on the way, and reached here six months later. The first orchard was planted that fall at Milwaukie in Clackamas county. That was the beginning of the orchard industry in Oregon, and perhaps the northwest. Among the varieties were Newtons, Baldwins, and Spitzenbergens. The first apples Mr. Luelling sold in Portland brought \$1.00 each, and he sold 75."

The discovery of gold in California led to other "golden opportunities," besides the yellow metal washed from river beds, or dug from mountain sides. Oregon apples sold in the San Francisco market at \$4.50 each; gold was freely exchanged for apples at this high figure. The horticultural publications such as the Magazine of Horticulture, The Horticulturist and Gardeners' Monthly were filled with glowing accounts of such high prices. These stories forecast wonderful opportunities in fruit growing, and accounts of the sky-high prices spread nation-wide. Farmers with two or three acres of orchard got as big a "kick" from these stories as any reader of today can get from the most livid thrillers on the news-stands.

A Californian, with the same enthusiastic "booster" spirit that prevails in his state today, wrote to The Horticulturist in 1855: "Apples find ready sale at \$8 to \$12 per bushel. At this rate one acre of land

in apple trees, 40 trees to the acre, at the low estimate of 14 bushels to the tree gives the sum of \$4480 per acre. This is a matter of fact, not speculation. Some of our wisest men say that good winter apples will command just as high a price in the San Francisco market for the next thirty years at least."

With such figures circulating across the country, there's little wonder that the tide of migration rushed westward like water from a broken dam. There were optimistic letters from pioneer boosters of the far west who saw bigger opportunity in greater population. And the states, counties, communities and the railroads issued booklets encouraging migration to the new regions. The fruit grower found plenty in this literature, as in horticultural magazines of the Civil War period, to stimulate his imagination.

One of the unusual influences was an Indian medicine concern of Corry, Pa., known as the Oregon Indian Medicine Company. It reached the height of its influence in the '80s and '90s, when thirty show troupes were employed. These circulated all over the eastern United States, summer and winter. A show company usually made a two weeks' stand in a town, giving free shows interspersed with "commercial announcements" about the famed Oregon Indian remedies. Wherever the shows made a stand they brought out crowds of farm and village people. Some watched for the return of the shows year after year, and depended on the remedies for all ailments of man or beast.

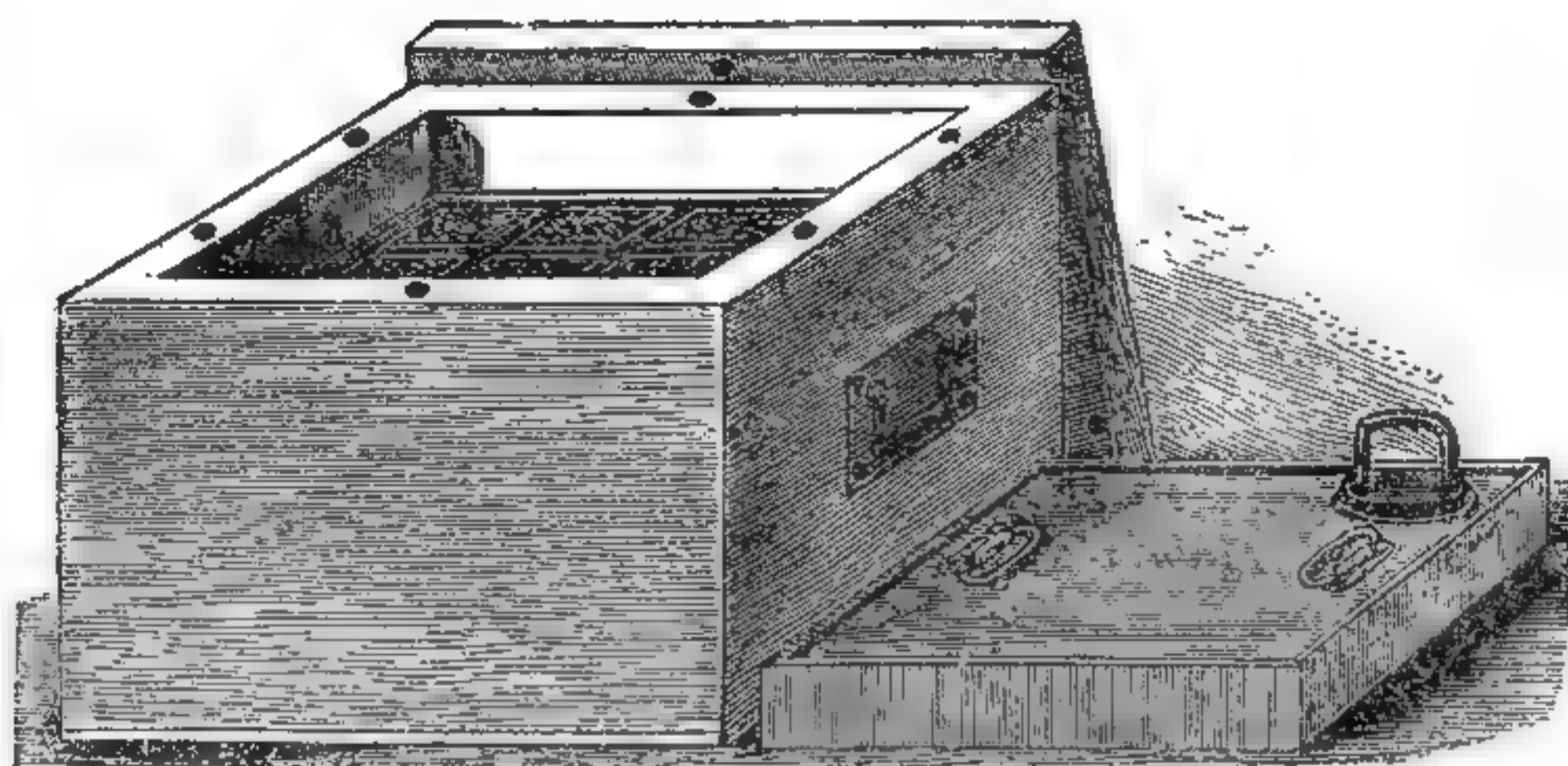
Col. T. A. Edwards of Civil War and Modoc Indian War fame, and his associate, a half-breed scout named Donald McKay, were the outstanding personalities of the show and medicine business.

Donald McKay knew Indian medicine lore from his childhood. At the shows they offered a fascinating book by Colonel Edwards, containing stories of his adventures in Oregon and Washington. These books sold widely and painted in the minds of thousands a picture of the Pacific northwest as the land of romance, adventure and happiness. They credited this condition to the adventurous Colonel Edwards and his men, for eliminating any and all danger from hostile Indians.

The influence of these shows can hardly be over-estimated. Many farmers became fascinated with the stories of the west, and enthused over its possibilities, and their migration made horticultural history in the Pacific northwest.

Emory Thompson, pioneer in the Yakima Valley since 1894, tells the writer that there were a few apples planted in the Yakima valley as early as 1870; the orchards were confined to the bottom lands. The Sunnyside Canal was completed in 1893, providing irrigation. By that time some upland orchards had been planted and were coming in bearing.

In the pioneer period were such growers as Purdy Flint, who at one



H. A. DUO'S REFRIGERATING FRUIT-BOX.

An early attempt at refrigerating fruit in transit. The metal top was a container for cracked ice. From Rural New Yorker, 1870.

time had 100 acres of peaches planted. Ritchie Gilbert early started an orchard of Delicious, Winesap and Rome Beauty, an orchard enterprise which has developed to a present area of 1100 acres, with large cold storage capacity. One of the largest cold storage plants is at Zillah, 16 miles east of Yakima.

Mr. Thompson recalls that pioneers in the Yakima valley, in driving their sheep and cattle to and from the higher levels, noticed that the upper land was favored with frost drainage. This, together with soil conditions and climate, contributed to greater plantings.

W. A. Luce, Associate Extension Agent, Yakima, Washington, states that practically all trees now in the Yakima valley are less than 35 years of age. "The first heavy planting of fruit trees was in the lower valley, where irrigation was easier," he says. "As problems increased, however, and depression years hit the fruit industry, most of the old apple trees in the lower valley which includes both Yakima and Benton counties were removed, and their place was taken by other crops. Later apple plantings in the upper valley above Union Gap, however, have survived during all the trying years, and today a great acreage of apple trees stretching from Union Gap to Tieton presents an unbroken chain of orchards.

"The varieties consist mainly of Winesap, Delicious, Rome and Jonathan. All orchards are irrigated, and are planted much closer than orchards in the non-irrigated sections of the east. Trees were originally planted 20 to 25 feet apart, and as they became crowded the spacing was increased. However with the use of irrigation water, and Nature's abundant supply of sunshine, apple trees still remain very closely planted and produce average crops of better than 500 bushels per acre.

"The soils on which our orchards were planted are largely volcanic

in type, and contain a very small amount of organic matter. Early practices in soil management soon used up the small amount of organic matter in the soil, and prior to 1920, before commercial fertilizers became the rule here, apples had the tendency to get smaller each year, although the color was extremely high. Following 1920, alfalfa cover crops were the rule and generally put the orchard soils in excellent condition for fruit production. Nitrogen fertilizers also came into general use about this time. As the years progressed, however, the legume cover crops in the orchards were killed out by heavy use of the orchard disc, and soils became toxic from excessive use of lead arsenate in the control of codling moth.

"This brought on a problem in soil management which has caused many a headache, and still puzzles many growers to know just what program to use in maintaining soil fertility. At present the use of winter rye cover, coupled with sufficient nitrogen to maintain tree vigor, appears to be the most popular program.

"Soon after apple trees were planted in the valley the codling moth became a pest, and has taken a yearly toll of many thousands of bushels of fruit. It has always been and probably will be our main insect pest, although at times San Jose scale and Pacific mite come in for their share of damage.

"About 1926 most growers were spraying four or five times with lead arsenate to control codling moth, and were not paying much attention to the appearance of their fruit as it went to market. This brought on the problem of spray residue, and for the next seven or eight years this problem caused many orchards to go out of business. After it is all over, however, the fruit grower looks back on the problem as something that has been well met, and fruit is going out in much better appearance and condition than it did before the period when washing became a general practice.

"The marketing of apples from the Yakima valley is generally handled by agents for the growers either as cooperative units or independent shippers. There are two large organizations in the valley; the Horticultural Union and the Yakima Fruit Growers Association. Perhaps Yakima is noted for its large growers who are both growers and shippers. These interests maintain hundreds of acres of orchards as a basis for their tonnage, and most of them handle fruit for other smaller growers along with their own.

"Until recent OPA rulings came into effect, all fruit has been packed according to three grades; extra fancy, fancy and C grade in the standard Western fruit box. Some variation has been adopted by dealers in placing unwrapped apples in a 'face and fill' pack, and some of the tender varieties such as Golden Delicious and Red Delicious have been packed in cardboard cartons for special trade.

"The outlook for the apple industry here is very bright, although considerable difficulty is being experienced with the labor problem at present. Most of the crop in the valley is of the Winesap variety and matures late, often causing a picking problem. However this variety is well adapted to the district, produces heavily, and can be handled much more satisfactorily than some of the more tender varieties. It also has a very wide area of distribution, being the main export variety from the State of Washington. New plantings of orchards are not numerous, but the present planting apparently will maintain itself for a long time to come."

The commercial apple expansion in adjoining British Columbia, Canada, is in the Okanagan Valley, the Kootenays and in the vicinity of Creston. The apple industry started here in 1905, co-temporary with the Oregon and Washington apple development. The rigorous climate of much of Canada has limited apple growing to certain favored sections. This led to a program of collection, selection and breeding, inaugurated 50 years ago.

M. B. Davis and R. L. Wheeler, co-authors of the booklet, "The Apple Industry in Canada," tell a fascinating story: "In the efforts of the Canadian Government to procure more suitable varieties, Mr. Charles Gibb of Abbotsford, Quebec, was sent to Russia, with Professor J. K. Budd of Iowa, to obtain a collection of the most hardy and desirable kinds grown in that country. The Canadian share of this collection was assembled at Ottawa, and from there distributed through-

John McIntosh, photographed with what remained of the original McIntosh apple tree, many years ago. (From the Canadian Geographic Journal.)



out Canada for trial. It soon became evident that practically none of these were of suitable quality for Canadian demands, so work was started to combine the hardiness of these Russian sorts with the quality of our better commercial apples. The late William Saunders, director of the Experimental farms at that time, even had visions of producing apples hardy enough to withstand the rigors of our great Northwest, and started a program towards that end, which is now being carried on by a third generation of plant breeders. Saunders knew that the little pea crab, *Malus Baccata*, would grow as far north as the 60th parallel of latitude, hence must possess a great deal of hardiness. He set about to hybridize this little apple with varieties such as McIntosh Red, and also with some of the largest and best of the Russian introductions. The result of his first effort was to obtain a series of small crab-like apples, much larger than the pea crab but far from being a real apple. The best of these were tested out in the Canadian Northwest, and a few were able to withstand the severe winters. These were again crossed with the large apples, and a second batch of children reared. Many of these were of fair size and quality, but though quite crab-like, not as hardy as the best of the first crosses. A few, however, showed merit in this respect. A third attempt was made, long after Dr. Saunders had gone to his reward. The second crosses were treated to another dose of the larger apples. Progeny from this attempt contained several which were of full apple size, with fair quality, and some have proved to be of outstanding hardiness. Meanwhile the more temperate parts of Canada have profited by the breeding work of the Experimental Farms, and several varieties such as Melba, Joyce, Lobo, Lawfam and Sandow have found a place in Canada's commercial orchards."

CHAPTER XI

Johnny Appleseed

"I am the voice of one crying in the wilderness" were the words of the devout, ascetic John the Baptist—and also of Johnny Appleseed, a John-the-Baptist-like character who was known to the parents of people now alive.

Johnny Appleseed, 1775-1847, was a real, living, devout human character, who was inspired to perform a great service. Well did he fulfill his mission, and there are still standing, in many places in Pennsylvania, West Virginia, Ohio and Indiana, ancient apple trees that originated in the thoughtful and loving purpose of Johnny Appleseed to provide the best of fruit for the coming generation.

Men and women now residing on farms and in villages in an area of 100,000 square miles can recall hearing their grandparents tell of the mild, kind, religious man visiting their homes, and partaking of their bread. They recall hearing of his unusual dress, his solicitude for children and in fact for all living things—for all human beings and animals, the snakes in the deep marsh grass, even insects.

The appearance of Johnny Appleseed has become a fixture in the traditions of thousands of families, in thousands of communities. He was a small, restless, wiry man, with long dark hair and a scanty beard, never shaved. He went barefooted in almost any weather. On rare occasions—when he might be forced to wear shoes due to extreme cold—he could be seen wearing an Indian moccasin on one foot and an old cast-off wrinkled leather boot on the other, probably leading a lame horse, and carrying over his shoulder a sack containing apple seeds, and fragments of the Bible and of the works of Swedenborg.

Swedenborg was a Swedish philosopher and mystic who wrote of flying machines, machine guns, and Divine Love and Wisdom. Johnny Appleseed waxed eloquent when he was denouncing waste, cruelty, and inhumanity—and when he was expounding Swedenborg and the Bible, as he reclined on the puncheon floor of a pioneer's cabin. In presenting his "news right fresh from heaven," he spoke with equal enthusiasm of apples and apple trees, for which he had an inspired love.

Orchardists of the sections in which he traveled are today proud of Johnny Appleseed's visits to their forefathers. They recall that he was welcomed by young and old. He loved children, and would never permit himself to share the meagre food supply of a pioneer without first inquiring whether there was enough for all, particularly the children. During apple season he shared with the youngsters any choice specimens he might have in his sack.

The first we hear of Jonathan Chapman, born near Boston, known as Johnny Appleseed, was in 1801. He was leading a horse, on the back of which was a considerable quantity of apple seeds in sacks. These seeds he planted along the borders of Licking River in the vicinity of Zanesville, Newark and other towns and cities in Ohio, then undreamed of as centers of population.

Five years later he was seen drifting down the Ohio river with two canoes lashed together, laden with apple seeds and his scant belongings. Reaching Marietta, Ohio, then a flourishing pioneer community, he turned up the Muskingum river, proceeding to the site of the present city of Coshocton, Ohio, then following tributary streams as far as what is now Ashland County and Richland County, Ohio.

He stopped at every favorable point to plant apple seeds, protect his plantings with a brush fence, and then move on. He had an uncanny memory for these places, and used them as sources of supply for trees he gave to pioneer settlers, or bartered for corn meal for his sustenance, or for promissory notes without date. Invariably he urged apple trees upon poor settlers, and he never sought payment on the notes he received. Honor was so general among the early settlers that many of them insisted on paying him for trees, feeling that their promise to pay was a sacred obligation. As a result of this old fashioned honesty Johnny Appleseed usually had some money to share with the poor, or pay to a farmer who might have a lame or injured horse or ox. He would buy the animal, take it to good pasturage, and if it recovered he would leave it with a kindhearted settler who would provide a good home for it. He refused to sell an animal.

His kindness extended beyond domestic animals, as he regretted to the day of his death his hasty anger in killing a rattlesnake about to strike him. He even put out a fire he had made, one frosty night in the woods, because it attracted mosquitoes into its flames.

Johnny Appleseed might have had a settled home, if he had given even the least attention to business affairs. He purchased sufficient acreage for a good sized farm in Ashland County, Ohio, but failed to record the deed. He had little need for money, and what he had he usually shared with poor families, either settled or westward bound.

When we first hear of him he dressed in cast-off garments, which were luxurious compared to his attire of later years. This was a coffee-sack of coarse-fibered material, in which he cut holes at the corners for his arms, and scalloped the bottom for his neck. This was his sole garment. In early years he wore a tin cooking utensil as a cap, but later he substituted a sort of blunted dunce cap, with visor for eye protection, which he made from cardboard.

Johnny Appleseed had a quiet sense of humor. Once an evangelist, well dressed for those days, was preaching from a stump in Mansfield,



These pictures give an accurate impression of Johnny Appleseed's appearance, according to accounts that have come down to us. At the right, Johnny Appleseed is shown warning the settlers of approaching British and Indians. From Harper's, 1871.

Ohio, condemning the follies of the age, including waste, calico and store tea. He asked repeatedly: "Where now is there a man who, like the primitive Christians, is traveling to heaven barefooted, and clad in coarse raiment?" At last Johnny Appleseed arose from the log on which he was sitting, walked up and placed one bare foot on the stump. He pointed to his coffee sack garment and remarked to the preacher: "Here's your primitive Christian." The audience well knew Johnny Appleseed, and their uproar so riled the evangelist that he dismissed the congregation.

During the War of 1812, Johnny Appleseed served the new country faithfully and well; hundreds of scattered families owed their very lives to his warning. News of the surrender of Hull brought terror to the pioneers; bands of Indians and British were advancing in a spirit of destruction, and the block houses were not sufficient protection. Johnny Appleseed, who mingled unmolested with whites and Indians, friend or foe, traveled day and night to warn scattered families of the approaching danger. Refusing food and rest, he hurried from cabin to cabin, and from settlement to settlement, until every person had knowledge of the approaching peril. As he approached a cabin, he proclaimed, as a prophet of old, "The Spirit of the Lord is upon me, and he hath anointed me to blow the trumpet in the wilderness, and

sound an alarm in the forest; for behold the tribes of the heathen are round about your doors, and a devouring flame followeth after them." An aged man, quoted in Harper's magazine in 1871, recalled that he could "recall the thrill caused by the wild-looking herald of danger, arousing the family on a bright moonlight night with his piercing voice."

In the third of a century during which he traveled across the state of Ohio, Johnny Appleseed saw great changes. Towns and villages were founded, a highway system was laid out, log cabins were disappearing. The whole area had assumed a well-established pattern, and the barefoot traveler in the coffee-sack was not considered a guest "fit for the parlor in the new frame house." For this reason he turned his face westward.

We last hear of him on a summer day in 1847, in the vicinity of Fort Wayne, Indiana. He was warmly welcomed in the home of an Allen county pioneer, but declined food other than bread and milk. Seated on the door-step, facing the setting sun, he partook of the last simple meal of his life. He had traveled 20 miles that day, and that night he proclaimed to the pioneer family "News from heaven." He read the Beatitudes, expounding them with the fervor of a saint; his features were radiant. Next morning he was unable to speak because of approaching death. The neighborhood physician was summoned, and pronounced him dying, remarking that he had never seen a man in "so placid a state at the approach of death."

Johnny Appleseed may have been looking directly into another world, with which he had long professed to have close contact. He made no secret of such experiences as his communion with angels. Alone and a wanderer, he anticipated the unfolding of a greater life, feeling assured of a spiritual marriage with two angels, far transcending any marital relationship in this material world.

Long ago, a writer in Harper's summed up the life work of Johnny Appleseed: "A laboring, self-denying benefactor of his race. Homeless, solitary and ragged, he trod the thorny earth with bare and bleeding feet, intent only upon making the wilderness fruitful. His deeds will live in the fragrance of the apple blossoms he loved so well."

APPLE SEEDS FOR SALE
Only \$5.00 per bushel. Warranted to give satisfaction or the money will be refunded. For sale by
WM. ARMITAGE, Marengo, Wayne Co., N. Y.

*Bulk apple seeds, without any specification regarding parent stock, were offered for sale in the last half of the past century.
Rural New Yorker, 1865.*

THE END

Personalities and Notes

The Rural New Yorker of August 6, 1865, carried this advertisement marking the Prince family's exit from the nursery business, after serving young America for a century and a third.

NURSERY FOR SALE.

Unprecedented Chance to enter the Business.

The celebrated Linnæan Botanic Nurseries of Flushing, N. Y., established in 1732, being the oldest nursery in the world, having sustained its high reputation for over a century and a quarter, is now offered for sale for *imperative personal reasons only*. The Nursery is fully stocked, and price will be made very moderate and terms most liberal. The value of the stock can be paid in convenient instalments and the land will be either leased or sold at a reasonable rate. The location of this Nursery and its celebrity at the South, will give it a large share of the anticipated business from that section. For particulars apply to
PRINCE & CO.

The name Prince has a very special meaning, for everyone interested in American horticulture. It was 1732 when the Prince nursery was established at Flushing, Long Island, by Robert Prince. The French Huguenots had brought many varieties of fruit trees with them in their migration to America. Their settlement at New Rochelle was the inspiration resulting in the establishment of this, the first extensive American nursery.

William Prince, 1725-1802, son of the founder, was the first advertiser of nursery stock. In 1767 an advertisement read: "For sale at William Prince's nursery, Flushing, a great variety of fruit trees, such as apple, plum, peach, nectarine, cherry, apricot and pear. They may be put up so as to be sent to Europe. Capt. Jeremiah Mitchell and Daniel Clements go to New York in packet boats Tuesdays and Fridays." Even before the outbreak of the Revolution this nursery was advertising ornamental trees.

After the battle of Long Island, General Howe of the British army placed a guard over the nursery to prevent depredations. Officers and soldiers of the British army bought stock at this nursery to be shipped back to their homes.

Another William Prince, 1766-1842, third proprietor in the line, made further additions to the fame of the nurseries. The Lewis & Clark expedition to the Northwest found botanical treasures which were sent to the Prince nurseries. From 1815 to 1850 the catalogs were outstanding as horticultural publications. William Prince published the "Treatise on Horticulture," the first work of its kind in America. He was civic minded, and was deeply interested in highways, and in encouraging a line of steamboats from Flushing to New York.

William Robert Prince, the fourth proprietor of the nurseries, was born in 1795 and died in 1869. He too was a prolific writer, and was internationally honored. One of his many interests was silk culture.

Andrew Jackson Downing and Charles Downing are names highly esteemed by generations of horticulturists and landscape gardeners. Especially was the name Downing associated with the monumental book, "Fruits and Fruit Trees of America."

Andrew Jackson Downing, 1815-52, and his brother Charles, 1815-1885, were the sons of a Newburg, N. Y. nurseryman. At the age of 26, Andrew published his "Treatise on the Theory and Practice of Landscape Gardening," probably the earliest and certainly one of the best works on the subject. In 1846 he founded "The Horticulturist," which he edited until his death.

Andrew was engaged to lay out the grounds near the Capitol, White House and Smithsonian Institution at Washington. While enroute to New York on the steamer Henry Clay the vessel caught fire while racing, and Andrew Jackson Downing sacrificed his life working to save others.

Charles Downing, a retiring man, sold out his nursery business in 1850 and devoted the remainder of his life to completing and revising the monumental work of his brother, the "Fruits and Fruit Trees of America." In 1869 his test orchard was said to contain trees and grafts of 1,800 varieties of apples, and 1,000 varieties of pears. He wrote many articles on horticulture, but never made a speech.

Apples have been grown on the British Isles since the days of the Roman conquest. Following the Norman conquest, improved varieties were brought from France and Holland.

The greatest influence in preserving ancient agricultural and horticultural practices was that of the monasteries. Monks retired to lone, inhospitable places, such as swamps and mountain sides, but in time these became centers of inspiration, agriculturally and horticulturally, for both knight and serf. The monks used care in the propagation of fruits, selecting the best varieties.

As early as 1688 an English writer enumerated 78 varieties of apples grown in the vicinity of London. The number of varieties grown in the British Isles and Europe numbered hundreds. Seeds, scions and young trees were brought to America by English, French and Dutch immigrants.

In the Hudson valley were numerous thrifty Dutch farmers, and every farm had its orchard. The Hudson was the natural avenue of transportation to New York city. Later the Erie canal provided a means of transportation from the interior—slow, but reasonably satisfactory for apples in barrels. Farmers received 75 cents a barrel for their fruit at the orchards.

Lake and river transportation were essential links between producer and consumer in the first half of the 19th century. Waterways provided outlet for apples in barrels, also for cider and apple-jack, apple jelly and apple butter, and dried apples. The orchards which were distant from water had to market their product in the form of dried apples.

It was an old-time custom, observed by many people, when eating an apple to select a favorable spot of ground and press the seeds into the earth with a turn of the boot. This was accompanied by a sort of benediction, that the result might be a vigorous tree of choice fruit, for the benefit of those to come in the future. There were many thousands of these men, Johnny Appleseeds on a small scale, with a thought for the future.



When apples were ripening on trees in the forest, the Indians knew that sooner or later they would find deer under the trees. So the Indians concealed themselves and were content to wait patiently for an easy shot at their game.

The red man loved apples. Even fruit that would be judged sour and undesirable according to our modern standards was delightful to his taste. And the Indian acquired too great a fondness for the juice of the apple.

The Japanese, true to form, appropriated the apple as they did other resources of the west. Within a decade after Perry "opened Japan," the Japanese were importing American stock as the basis of their apple industry. Their only historic apple was a flowering ornamental crab apple.

Peter W. Yates, a member of the New York State Agricultural Society, writing of grafting and budding, tells that grafting and inoculating (budding) were used by Robert Prince, who established the earliest sizeable nursery in America.

In the years following the Civil War, the Ben Davis apple earned for itself the nick-name "mortgage lifter." These highly colored, attractive apples, that kept well until the following spring or summer, found a ready market. In the hands of a capable cook who knew how to season her sauce and pies, the Ben Davis met the family needs satisfactorily.

Dr. Hills, of the Vermont Experiment Station, and dean of the Agricultural College, stated that in his research in New England records, he found that there was such a scarcity of milk in one town in 1679 that babies were given cider.

William Dempster Hoard, one-time governor of Wisconsin and founder of the dairy industry in that state, started his career before the Civil War selling New York State nursery stock in Wisconsin. After serving in the Union Army he returned to Wisconsin and established a newspaper, and later Hoard's Dairyman.

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Posted May 2022
B.D. Szafranski
Elma NY USA

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